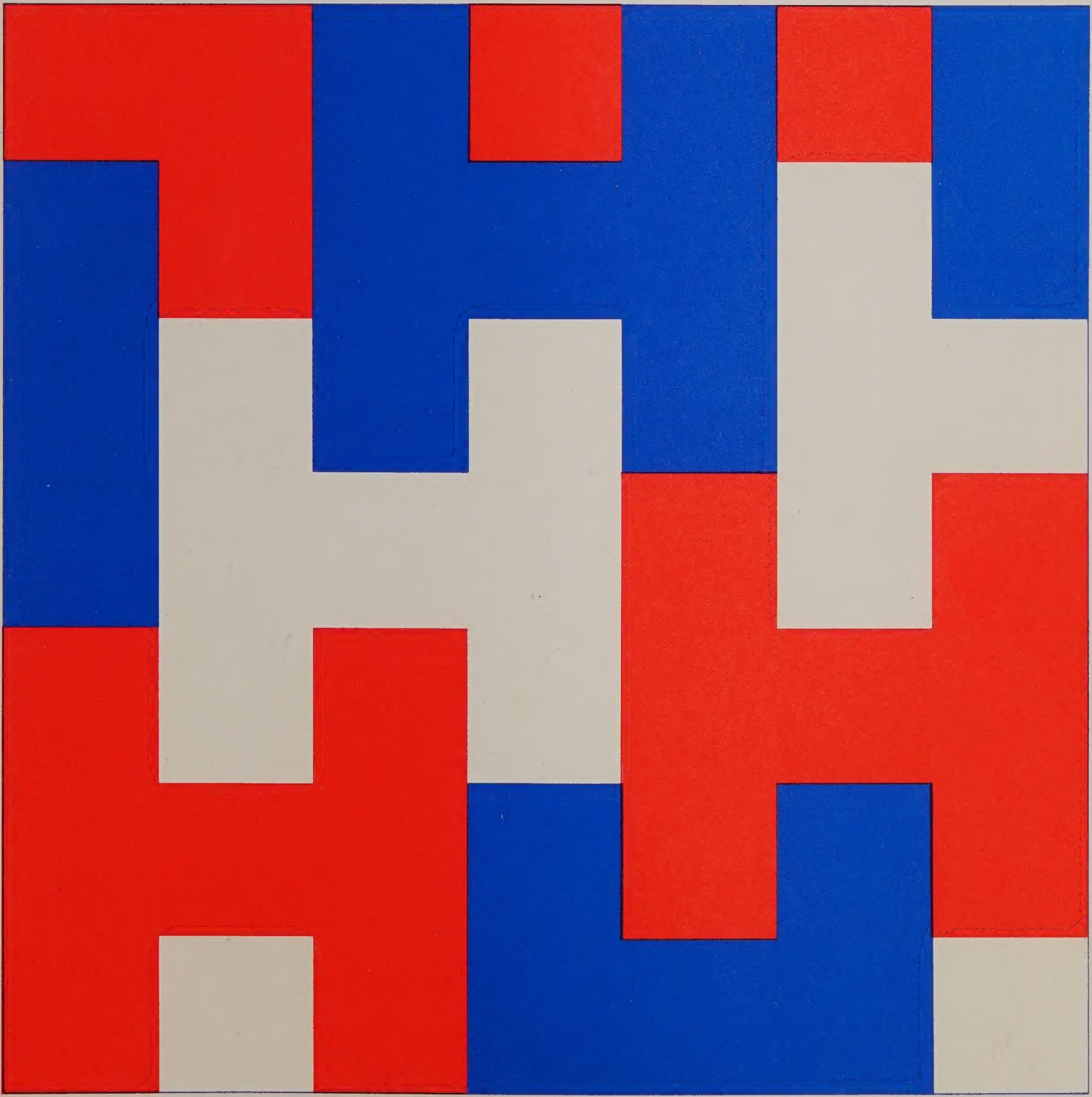
Rohn® Ham Tower Catalog

$2.00

AUG 7 1984



Do not install towers or masts near power lines. All towers or masts should be installed out of falling distance of power lines since every electrical and telephone wire should be considered dangerous.

Unarco-Rohn recommends anti-climb sections on all towers to prevent unauthorized persons from climbing towers.

All towers or masts should be installed by experienced and trained personnel.

All types of antenna installations should be thoroughly inspected by qualified personnel and remarked with hazard and warning labels at least twice a year to insure safety and proper performance.

All antenna installations must be grounded per local or national codes.

The mixing of so-called interchangeable copies of Rohn products with Rohn products is dangerous and voids all engineering or warranty data supplied by Unarco-Rohn. Materials used by the so-called copies may not be of the same quality and have not been tested or engineered by Unarco-Rohn to conform to safe quality standards. Mixing of non-Rohn items may endanger the lives of your customers and cause serious product failures and financial misfortune for all concerned.

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NOTICE

INSTALLATION INSTRUCTIONS, WARNING LABELS, CATALOGS, GUY CHARTS, ETC. ARE AVAILABLE FROM ROHN.

DUE TO GOVERNMENT REGULATIONS, BE SURE YOUR CUSTOMERS ARE INFORMED AS TO PROPER INSTALLATION INSTRUCTIONS WHEN PURCHASING ANY ANTENNA SUPPORTING STRUCTURE.

THE MIXING OF SO-CALLED INTERCHANGEABLE COPIES OF ROHN TOWERS WITH ROHN TOWERS IS DANGEROUS AND VOIDS ALL ENGINEERING OR WARRANTY DATA SUPPLIED BY ROHN. MATERIALS USED BY THE SO-CALLED COPIES ARE NOT THE SAME QUALITY AND HAVE NOT BEEN TESTED OR ENGINEERED BY ROHN TO CONFORM TO THE SAME QUALITY STANDARDS. MIXING OF ROHN ITEMS MAY ENDANGER THE LIVES OF YOUR CUSTOMERS AND CAUSE SERIOUS TOWER FAILURES AND FINANCIAL MISFORTUNE FOR ALL CONCERNED.

WARNING

Installing and rigging towers, masts, and antennas require specialized skills and experience. Information supplied by Rohn assumes that all products will be installed by personnel having these skills and having installed similar products before. No one should attempt to install towers or masts without these skills and experience.

Rohn assumes no liability if faulty or dangerous installation practices are used. There are available trained and experienced personnel to assist in installation, maintenance, and disassembly. Contact your local installer if consultation or assistance is required.

Rohn does not recommend or warrant in any way the use of used tower sections. The use of used tower sections voids all warranties set forth by Rohn because no one knows if the used material has been misused, overloaded, or damaged. If, for some reason, tower sections are re-used, all new, galvanized, high strength bolt assemblies are recommended.

Rohn recommends anti-climb sections on all towers to prevent unauthorized persons from climbing towers.

All antenna installations must be grounded per local or national codes.

Do not install towers or masts near power lines. All towers or masts should be installed out of falling distance of power lines since every electrical and telephone wire should be considered dangerous.

All types of antenna installations should be thoroughly inspected by qualified personnel and remarked with hazard and warning labels at least twice a year to insure safety and proper performance.

Rohn

NOTICE

UNR-Rohn makes available many items and types of towers which may or may not be required for your particular installation. Based on local, state, or federal laws and building codes for your area, it may be necessary that your particular tower have special items or be given special consideration.

UNR-Rohn makes available, either as standard or specials, many items and special care should be taken as to whether any or all of these items are required for your tower. Please be specific and advise us of your exact needs. UNR-Rohn cannot be responsible for any omission at anytime.

Some items available in various types and sizes are safety climbing devices, ladders, safety cages, anti-climbing devices, work platforms, rest platforms, F.A.A. painting or lighting, grounding, and fencing. Special engineering service and special packaging are also available. If there are any special requirements for your tower, be sure to include them in your request for quotation and on your order.

Due to the present day Occupational Safety and Health Act regulations, towers and parts are available incorporating features which will permit a safe product. However, the following is our position with regard to OSHA.

It is UNR-Rohn's intention to comply with the Williams-Steiger Occupational Safety and Health Act of 1970. It is a policy of UNR-Rohn to design and make towers and related equipment that are safe to use without hazards to people and/or property. We cannot, however, agree to a "blanket" certification that we are in total compliance with this Act because there are provisions in it whose meaning and application are unclear.

Therefore, we ask that you list your specific requirements with which you wish us to comply. These requirements may or may not affect the price of the towers and equipment under consideration for purchase.

We appreciate the opportunity afforded and would be happy to answer any additional questions you may have relative to our proposal.

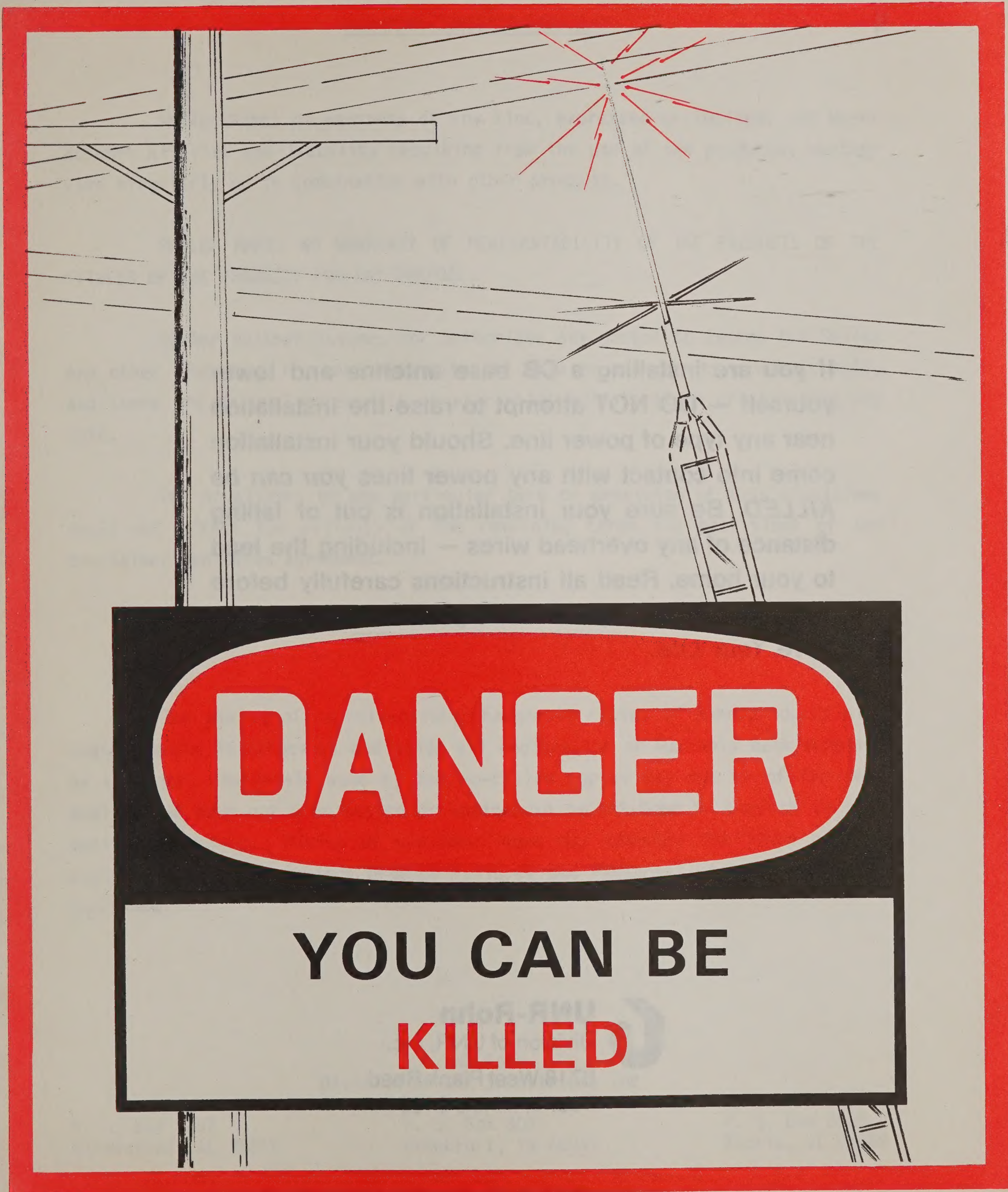
WARNING

Your tower may or may not include step bolts for construction purposes. Step bolts are supplied on self-supporting towers as a convenience during construction.

If your tower has step bolts, the spacing at the section joints may not be consistent with the spacing throughout the tower. If this condition presents any hazard, please do not use these step bolts. If you or your customer think this possible unequal spacing will present safety problems to any personnel, do not install any step bolts. For proper safety UNR-Rohn recommends a ladder and safety climbing device on large towers where inexperienced personnel climb the tower.

UNR-Rohn will not be responsible for the use of step bolts. If you wish to use step bolts as supplied, this responsibility will be totally yours or your customers.

UNR-Rohn
Division of UNR, Inc.


DANGER
YOU CAN BE
KILLED

If you are installing a CB base antenna and tower yourself — DO NOT attempt to raise the installation near any type of power line. Should your installation come into contact with any power lines *you can be KILLED.* Be sure your installation is out of falling distance of any overhead wires — including the lead to your home. Read all instructions carefully before you begin or better yet — call a professional — It May Save Your Life.

UNR-Rohn
Division of UNR, Inc.
6718 West Plank Road
Peoria, Illinois 61601

UNR-ROHN CONSUMER WARRANTY

Seller makes no warranty of any kind, expressed or implied, and Buyer assumes all risk and liability resulting from the use of the products, whether used singularly or in combination with other products.

SELLER MAKES NO WARRANTY OF MERCHANTABILITY OF THE PRODUCTS OR THE FITNESS OF THE PRODUCTS FOR ANY PURPOSE.

Seller neither assumes nor authorizes any person to assume for Seller any other liability in connection with the sale or use of its products sold, and there are no oral agreements or warranties collateral to or affecting any sale.

The invalidity of any particular term or provision of this disclaimer shall not affect the validity of the remaining terms and provisions of the disclaimer and sales agreement.

The mixing of so-called interchangeable copies of Rohn products with Rohn products is dangerous and voids all engineering or warranty data supplied by UNR-Rohn. Materials used by the so-called copies may not be of the same quality and have not been tested or engineered by UNR-Rohn to conform to safe quality standards. Mixing of non-Rohn items may endanger the lives of your customers and cause serious product failures and financial misfortune for all concerned.

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Frankfort, IN 46041

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Peoria, IL 61656

Form No. 76896-R4

020181

ROHN

TERMS AND CONDITIONS RELATING TO ALL SALES

1. All quotations, proposals, prices, or other terms are made for acceptance within 60 days (after 60 days, prices in effect at time of shipment will apply) and shipment within 60 days of purchase order date, unless otherwise stated. They are subject to change without notice; however, we invite your request for an extension. They are also subject to Credit and Marketing Department approval prior to acceptance.
2. Every effort will be made to maintain shipping schedules. All deliveries and schedules are contingent on availability of raw materials, fuel, and transportation. We will not be liable for damages on account of any delays due to causes beyond our reasonable control. Rohn reserves the right to make partial shipments and to submit invoices accordingly.
3. Changes or modifications to orders can be made only by written agreement executed by all parties affected thereby, which agreement shall include any price modification.
4. Rohn's responsibility ceases upon delivery of all shipments to the carrier. The unloading of all shipments is the responsibility of the customer, not the carrier or Rohn. Buyer is warned against receipting for merchandise until careful inspection has been made. Buyer must make all claims and report all damages and losses to the delivering transportation company. All merchandise leaving Rohn's factory has been carefully inspected and Rohn does not assume responsibility for damages or shortages which occur in transit.
5. No federal, state, or local taxes are included in quoted prices. All quotations, proposals, prices, or other terms are subject to increase without notification by the amount of any sales, excise, or other tax levied or charged to seller by any governmental agency and any such tax will be passed onto purchaser as a tax or as an addition to the selling price. This also applies to any costs incurred due to local statutes or governmental regulations.
6. Orders are not subject to cancellation by buyer except by written agreement with seller. Any order cancelled, after any work has been done by Rohn, such as engineering, production, etc., will have a cancellation charge, to be determined solely at the discretion of Rohn for whatever work has been performed with a minimum of 10% of the purchase order price. If customer so chooses, he shall have the right to receive the material already performed at time of cancellation at the quoted price.
7. Material received may not be returned by buyer except by written agreement with seller. In all cases, permission must be secured from Rohn prior to the returning of any goods for credit. All returned goods are subject to a minimum service charge of 20%, plus all transportation charges, and are subject to inspection by Rohn. Returned goods will be offered and paid for only upon proof of purchase (i.e. invoice no.) and credit will be issued against invoice value. Rohn reserves the sole right to determine amount of credit to be issued on all goods returned for credit. Only standard, currently manufactured Rohn products may be considered for return and credit. Unsaleable products will be scrapped and no credit will be received. If returned goods are determined to have no value and buyer wishes them returned, the buyer will be charged return freight.
8. Rohn warrants the commercial items of its manufacture only, to be reasonably fit for the purpose for which they are manufactured and sold, provided, however, that this warranty shall be effective only if purchaser installs all material according to Rohn's recommendations and specifications and that purchaser during the warranty period shall regularly, not less than semi-annually, inspect and properly maintain all items. Any item found unfit for its purpose within 12 months from date of delivery will be repaired or replaced free of charge, F.O.B. Rohn's plant. Rohn shall be immediately notified in writing of such unfitness.

   Rohn reserves the sole right to determine if any material is to be repaired or replaced free of charge or to be supplied at Rohn's standard prices. Such obligation shall be limited to parts returned for inspection, properly packed and expenses prepaid, and providing inspection shall satisfactorily indicate defects.

   The warranty herein made is in lieu of all other warranties and, except as expressly stated herein, Rohn does not make and there are no warranties or obligations of any kind or nature whatsoever either expressed or implied including, but not restricted to, warranty or obligations as to design, material, workmanship, or manufacture or as to the use of the items covered hereby. Rohn shall not under any circumstances be liable to third persons for any claims or damages including direct, special, indirect, or consequential damages for any reason. The buyer agrees to indemnify and to hold Rohn harmless for, of, and from any loss, claims, damages, expenses and attorney's fees, including but not limited to, any fines, penalties and corrective measures Rohn may sustain by reason of the Buyer's failure to comply with said laws, rules, and regulations in connection with the performance of this sale.

   The above Warranty applies only to items manufactured by Rohn. Items not manufactured by UNR-Rohn are warranted and guaranteed only to the extent and in the manner warranted and guaranteed to Rohn by the manufacturer of such items and then only to the extent Rohn is liable to enforce such warranty or guaranty.

   Rohn will assume no responsibility for the adequacy of any product if material is used which is not totally supplied by Rohn.

   The above sets forth the only warranty made by Rohn in connection with items manufactured or sold by it, and any provisions in any proposals, specifications, advertising, or other provisions hereof, are merely descriptive and are not to be construed as warranties made by Rohn.

   All warranties are void on drawings made by others, whether by a professional engineer, sealed or not, that are not rechecked by Rohn and approved by Rohn. Rohn assumes no liability for the adequacy of the drawings or the design.
9. Rohn reserves the right to change or modify the design and construction of any product manufactured by Rohn and to substitute material equal to or superior to that originally specified.
10. No proposal, order, quotation, or acceptance may be changed or varied by verbal agreement, and all orders are accepted only under the provisions set forth herein.
11. Purchase orders and requests for quotations must be submitted in writing to Rohn.
12. If outside source inspection, assembly, etc. is required prior to shipment of an order, $50.00 per man hour (plus equipment time, if applicable) is chargeable, with $300.00 as a minimum.
13. Any welding inspection required by customer or customer's specifications must be done at Rohn's plant prior to packing and shipment of material from Rohn's plant.
14. A minimum charge of $25.00 will be billed for special handling and preparation of material for air shipments.
15. Rohn reserves the right to apply all remittances and credit memos to the oldest outstanding balance in your account. No credits will be issued for any reason against a purchase order whose billing is more than 90 days old. Customer corrections or complaints must be made within this period of time.
16. Standard catalog prices do not include special drawings or engineering stress analyses. If any are required, there will be a charge.
17. Rohn at all times reserves the right to take pictures of any or all of its products after installation for advertising purposes, except those which are under classified governmental control.
18. The customer will be responsible for any extra charges incurred on prepaid shipments. Any F.O.B. Peoria item shipped from Reno, Dallas, Birmingham, Frankfort, or Bridgeport will incur a 10% inbound freight, plus 7% warehouse and handling charge, and will be shipped F.O.B. shipping point.
19. A service charge not to exceed 2% per month of maximum allowable per State law will be billed on all accounts not paid within 30 days of invoice date.
20. Minimum total net worth of merchandise which can be ordered is $50.00. Any orders placed for less will be billed at $50.00.
21. Any purchase order, which is placed under a "hold order" for over five (5) days by the customer for any reason, will be subject to a 1% per month storage charge, plus a 2% per month interest charge for a total of 3% per month, from the date of the hold until the order is released.
22. All CIA requirements must be met with certified checks or money orders to insure prompt shipment.
23. All expenses incurred by Rohn during any collection effort shall be charged to the customer.

October 1, 1981

UNR-ROHN

Installation Information

Bracketed #20 and #25 Towers, Non-Guyed

SITE SELECTION: Select a tower location sufficiently clear and out of falling distance of power lines since every electrical and telephone wire should be considered dangerous. The only safe distance from power lines is at least twice the height of tower, mast, and antenna combined. Tower should be installed and dismantled by experienced and trained personnel. All antenna installations must be grounded per local or national codes.

BASE: The size of the concrete base for a 40' #20 tower, with a house bracket 12' aboveground, is 3' deep by 18" square. The base for a bracketed 50' #25 tower is 3' deep by 18" square. For cases of loose soil, etc., the base must be larger. Spread about 2" of gravel in bottom of hole prior to setting base assembly. The base assembly should be attached to the first 10' section prior to setting into gravel. After setting base assembly on gravel, fill another 3" with gravel around legs of base. This allows the tower base legs to extend the required amount below the base of the concrete, thus allowing for drainage of moisture into the gravel. The base assembly and first 10' section should be leveled, plumbed, and temporarily guyed or braced while pouring the concrete. This will insure a plumb tower after installation. Check tower to assure it is plumb and level after pouring concrete. Do not pull base up into the concrete to level it and do not drive it hard into ground as this plugs leg holes and prevents moisture drainage. Crown the top of the concrete slightly to prevent water accumulation. Do not use drive rods as a base for tower when set in concrete.

HEIGHT OF TOWER & BRACKET USES: House brackets must be used and should be mounted at least 12' aboveground to be effective. The #20 tower should not extend more than 28' above a house bracket and the #25 tower should not extend more than 33' above a house bracket. (Note: Two house brackets are to be used, equally spaced, on the 80' #25 tower.) To secure the house bracket, use lag screws no smaller than 3/8" x 2". A special effort should be made to locate the house bracket such that the lag screws go through the siding into a stud. Brackets fastened to the siding only will not hold in a high wind. Tighten the house bracket U-bolts only enough to prevent looseness. Do not dent or flatten the tower upright members by excessively tightening U-bolts.

BOLTS: Nuts and bolts are located in tower leg. Installers are urged to use a 10" lining-up punch that tapers from about 1/2" to 5/32" diameter over a 6-1/2" length. If bolts cannot be pushed through the holes with the heel of a hand while rocking the tower, do not hammer them through. Carefully drive the punch into the hole just enough to slightly enlarge it. The leg bolt hole should be just large enough to admit the bolt. Never drill out the holes. Be sure to tighten all leg bolts until they partially flatten the sleeves, causing the sleeves to actually grip the legs inside. Always replace stripped bolts. Upon completing an installation, there should be no vertical movement between tower sections at the joints when the tower is deliberately swayed from side to side.

MISCELLANEOUS: Installation is greatly hastened and simplified with the use of an erection fixture. Do not use it to lift more than the weight of one tower section at a time. If the antenna is to be fixed and a set screw used in the mast housing, or if a rotator is to be mounted on a short length of mast above the tower top section, install a TB50 tower bushing at bottom of the mast housing to center the mast in the mast housing. These bushings are "peened" in place. If the rotator is to be mounted inside the top section of the tower, do not install a TB50 tower bushing at bottom of mast housing. Anti-climb sections are recommended on all towers to prevent unauthorized persons from climbing tower.

CAUTION ... Be sure hinge bolts on hinged type accessories are loosened before attempting to hinge tower over. Hinge up no more than 33' of #25 or 28' of #20 tower only. All hinged type bases are recommended to be used to raise tower only without antenna. When raising and lowering tower on any hinged type base or hinge section, the loads applied for hinging the tower must be applied equally on both sides of the tower in order to reduce the possibility of twist on tower and hinges at the base. Special care must be taken to avoid the use of raising and lowering methods which may cause damage to tower or hinges. Hinged bases and roof mounted towers should only be installed and dismantled by professional and experienced installers.

All types of antenna installations should be thoroughly inspected by qualified personnel at least twice a year and remarked with hazard and warning labels to insure safety and proper performance.

Dismantling of any tower should be done by professional and experienced installers a section at a time with the use of an erection fixture.

All information is based upon average antennas, with no more than 2 square feet of area in a 20 psf (70 mph) wind load and a safety factor, with antenna installed at tower apex.

THESE ARE FACTORY TESTED INSTRUCTIONS. PLEASE FOLLOW CAREFULLY.

Copyright 1981 by UNR-Rohn.

"WARNING: INSTALLATION OR DISMANTLING OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS. FOR YOUR SAFETY, FOLLOW THE CATALOG DIRECTIONS."

INSTALLATION AND DISMANTLING INSTRUCTIONS -- YOU, YOUR ANTENNA, AND SAFETY

Each year hundreds of people are killed, mutilated, or receive severe permanent injuries when attempting to install or dismantle an antenna. In many of these cases, the victim was aware of the dangers of electrocution and failure but did not take adequate steps to avoid the hazard.

For your safety and to help you achieve a good installation, please READ and FOLLOW the safety precautions below. THEY MAY SAVE YOUR LIFE!

1. If you are installing or dismantling an antenna for the first time, please, for your own safety as well as others, seek PROFESSIONAL ASSISTANCE. Consult your dealer. He can explain which mounting or dismantling method to use for the size and type antenna you are about to install or dismantle.

2. Select your installation site with safety, as well as performance, in mind. (See information on Site Selection.) REMEMBER: POWER LINES AND PHONE LINES LOOK ALIKE. FOR YOUR SAFETY, ASSUME THAT ANY OVERHEAD LINES CAN KILL YOU.

3. Call your power company. Tell them your plans and ask them to look at your site. This is little inconvenience, considering YOUR LIFE IS AT STAKE.

4. Before you begin, plan your installation or dismantling procedure carefully. Successful installation or dismantling of a mast or tower is largely a matter of coordination. Each person should be assigned to a specific task and should know what to do and when to do it. One person should be designated as the "boss" to call out instructions and watch for signs of trouble.

5. When installing or dismantling your antenna, REMEMBER: DO NOT use a metal ladder. DO NOT work on a wet or windy day or if a thunderstorm is approaching. DO dress properly -- shoes with rubber soles and heels, rubber gloves, long sleeve shirt or jacket.

6. If the assembly starts to drop, get away from it and let it fall. REMEMBER: The antenna, mast, cable, and metal guy wires are all excellent conductors of electrical current. Even the slightest touch of any of these parts to a power line completes an electrical path through the antenna and the installer -- THAT'S YOU!

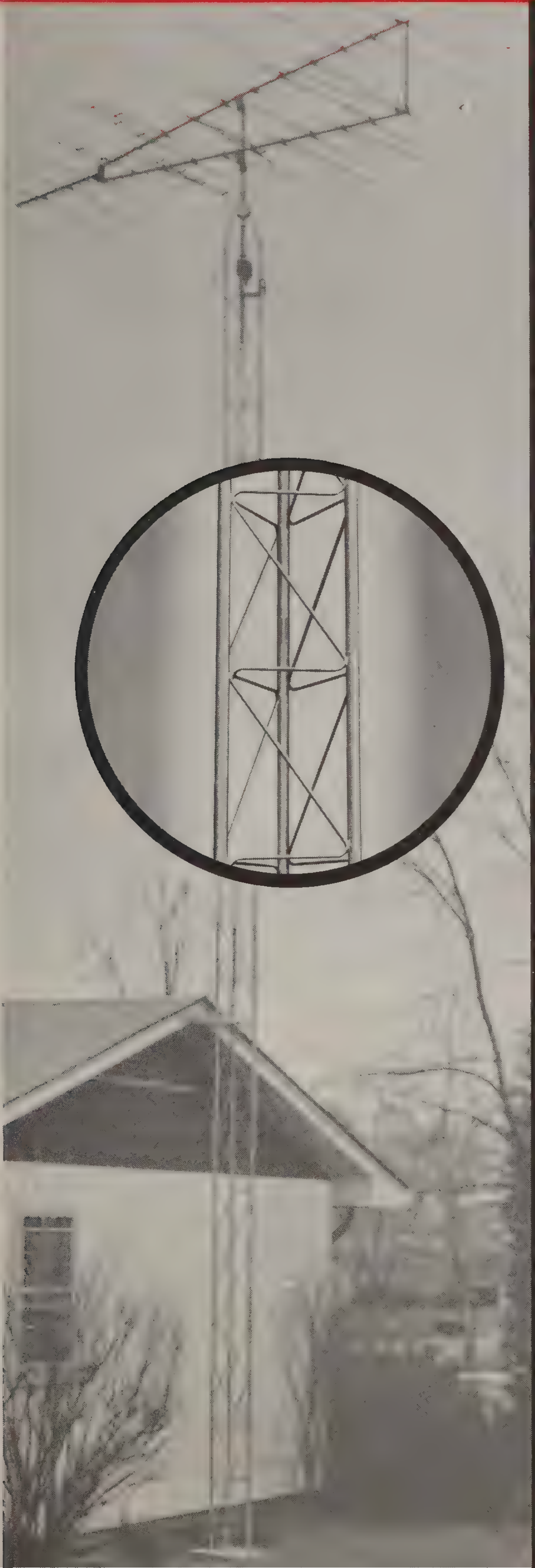
7. If any part of the antenna system should contact a power line -- DON'T TOUCH IT OR TRY TO REMOVE IT YOURSELF. CALL YOUR LOCAL POWER COMPANY. They will remove it safely.

8. If an electrical accident should occur -- DON'T grab hold of the person in contact with the power line or you too will be electrocuted. Use a DRY board, stick or rope to push or pull the victim away from the antenna. If the victim has stopped breathing, administer artificial respiration -- and stay with it. Have someone call for medical help.

SITE SELECTION: Before attempting to install your antenna, think where you can best place your antenna for safety and performance. To determine a safe distance from wires, power lines, and trees: 1) Measure the height of your antenna; 2) Add this length to the length of your tower or mast; and then, 3) Double this total for the minimum recommended safe distance.

If you are unable to maintain this safe distance, STOP! GET PROFESSIONAL HELP. Generally, the higher the antenna is aboveground, the better it performs. Good practice is to install your antenna above the roof line and away from power lines and obstructions. Remember that the FCC limits your CB antenna height. If possible, find a mounting place close to your set, where the antenna wire can take a short, vertical drop on the outside of the house for entry through a wall or window near the set. Your dealer carries a complete line of installation hardware.

ROHN® 25G TOWER



HOT DIP GALVANIZED

GENERAL USE

General Purpose Communication or Heavy-Duty TV Tower. The 25G will satisfy a tremendously wide range of tower needs.

DESIGN

Built on a 12½" equilateral triangular design with continuous steel "zig-zag" cross-bracing entirely electric welded and fabricated in precision equipment. The 8 "zig-zag" braces per 10' section mean more than usual strength.

CONSTRUCTION

Unequalled Sturdiness . . . Extra heavy-duty 1¼" steel tubing is used for side rails, resulting in far greater strength and sturdiness than ordinarily found in this size tower. SUPERIOR STRENGTH . . . has always been foremost in ROHN towers. This is achieved by setting rigid high standards for the steel used. These standards are constantly maintained by scientific testing according to accepted laboratory procedures so quality never varies! It's a natural conclusion that when quality ingredients are combined with precision manufacturing and proven design the result is a higher quality product!

FINISH

Famous ROHN Hot-Dip Galvanized long-life finish . . . the most durable coating ever known. Rust-proofs and gives an always attractive appearance. *Every inch,* including *inside* of entire tower, evenly and completely covered with zinc *after* fabrication.

ENGINEERING DATA

ROHN superior engineering means advanced design . . . this results in the best tower for the needs of today! This is proven because here is a tower at least 33% stronger and more durable than similar size and type towers found on the market today. At the same time, the ROHN production system means lower costs . . . giving you a tower actually costing less than inferior towers. Get the best . . . look at the No. 25G carefully and you'll agree.

SPECIAL FEATURES

The No. 25G uses double-bolted joints . . . proven the best method of joining tower sections for sturdiness and dependability. The extra strength of the No. 25G allows it to be self-supporting provided a house bracket is used and can go 35 feet above this bracket under normal conditions. (see instruction sheet) Under most guyed conditions the No. 25G is suitable to heights of 200 feet! Where special conditions or unusual antenna loading requirements must be met, we suggest you contact the Engineering Department for complete information. *Assembly bolts and nuts are located within 1 leg of each tower section.*

SELF-SUPPORTING HEIGHTS FOR 25G TOWER*

	Factor of Safety—1.5		Factor of Safety—2.3	
WIND LOAD	No. Ant.	2 Ft²	No. Ant.	2 Ft²
10.0 PSF (50 MPH)	72.4'	64.8'	58.4'	50.9'
14.4 PSF (60 MPH)	60.4'	52.9'	48.7'	41.3'
20.0 PSF (70.7 MPH)	51.3'	43.8'	41.4'	34.1'**

*see Installation Instruction

**Recommended

ROHN®

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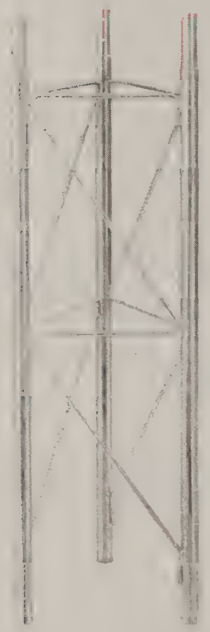
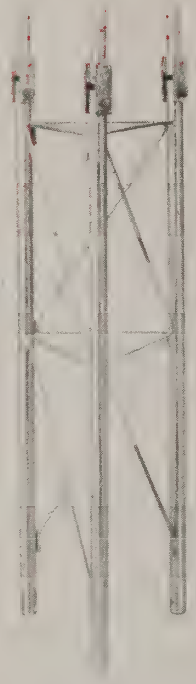
P.O. Box 2000 • Peoria, Illinois 61656
Phone: 309-697-4400
TWX 910-652-0646

25G

BASES



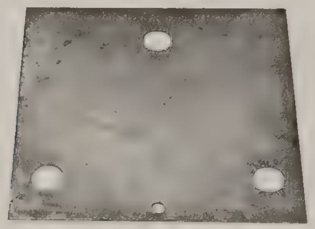
SB25G
3'4" SHORT BASE
section for concrete



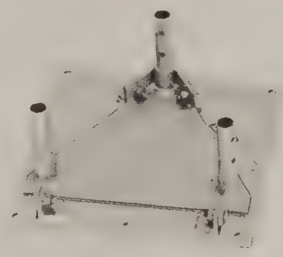
SBH25G*
3'4" HINGED SHORT BASE
section for concrete

DR25G *
2' DRIVE RODS
set of 3

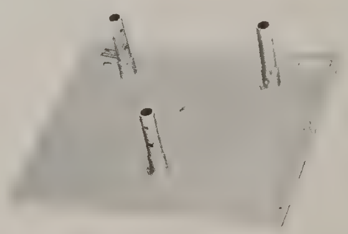
DT25
DRIVE TOOL
for DR 25G



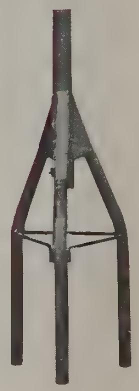
BP25G*
BASE PLATE
(for use with drive rods)



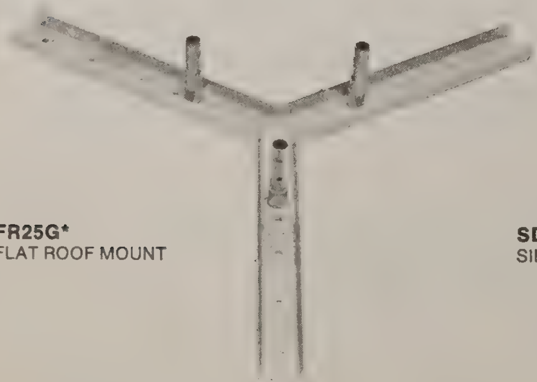
BPH25G*
HINGED BASE PLATE
for concrete



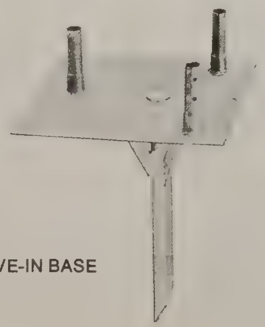
BPC25G*
CONCRETE BASE PLATE



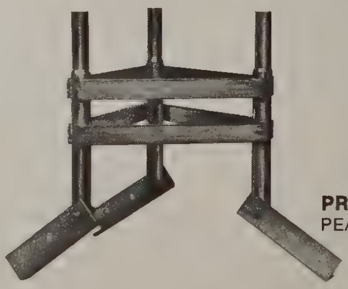
20BG
3' TOP SECTION



FR25G*
FLAT ROOF MOUNT



SDB25G*
SINGLE DRIVE-IN BASE



PR25G*
PEAK ROOF MOUNT

**Note: Towers mounted on these bases must be bracketed or guyed.*

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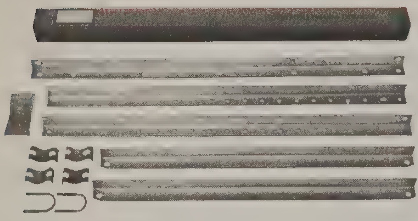
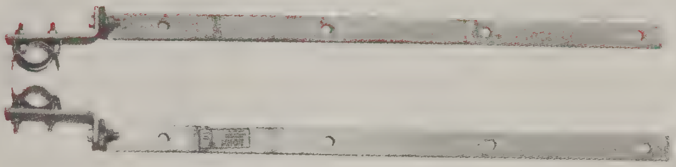
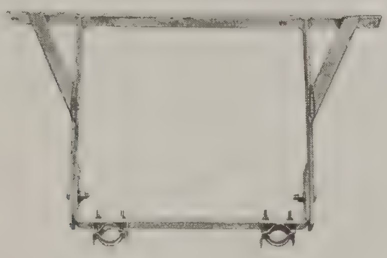
BRACKETS



HBU
UNIVERSAL HOUSE BRACKET



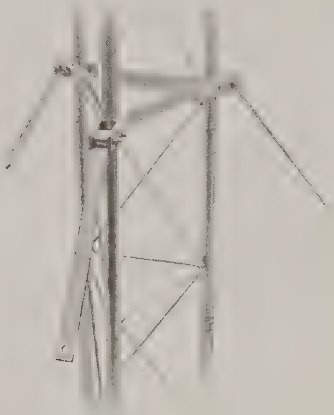
EB2525G
UNIVERSAL EAVE BRACKET



HB25AG 0-15"

HB25BG 0-24"
(not shown)

HB25CG 0-36"
(not shown)
ADUSTABLE HOUSE BRACKET



GA25G
GUY ASSEMBLY
with torque bars

GB25G
GUY BRACKET ONLY
without torque bars

SAFETY

SR 245
SAFETY RING

WP25G
WORK PLATFORM

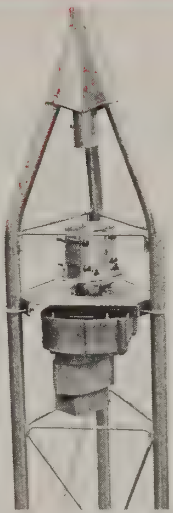
For lifting
1 - 10' section
at a time

EF 25 45
ERECTION FIXTURE

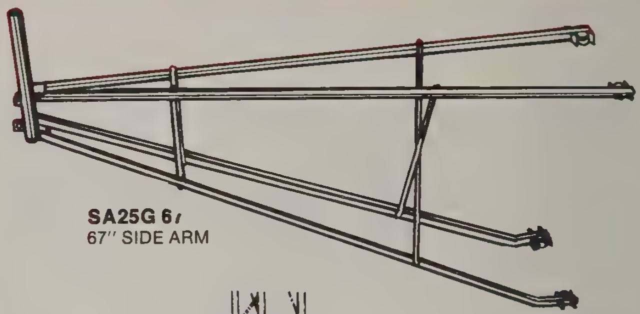
25ACL
ANTI-CLIMB SECTION

ACCESSORIES

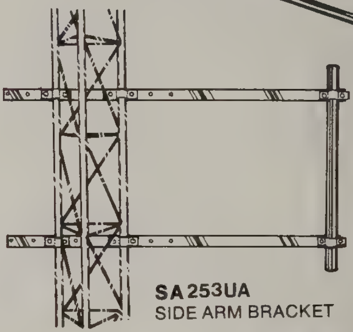
RP25G
ROTOR POST



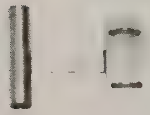
AS25G on 25AG
Top Section with Hy Gain Model 400 Rotor
(must be redrilled.)



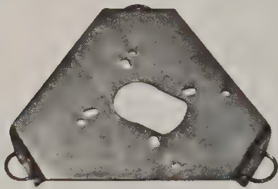
SA25G 67
67″ SIDE ARM



SA253UA
SIDE ARM BRACKET



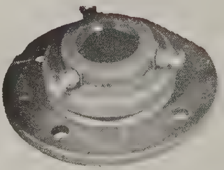
RP25G CM
SPECIAL ROTOR POST



AS25G
ACCESSORY SHELF
(for mounting Ham-M rotor.)

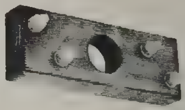
TB50 1¼″ ID, 2″ OD
TOWER BUSHING
for use in 20AG or 25AG Top Section

TB75 1½″ ID, 2″ OD
(not shown)



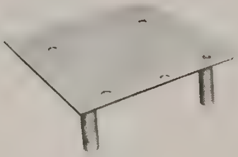
TB3
THRUST BEARING
2″ O.D. TUBING

TB4
THRUST BEARING
3″ O.D. TUBING
(not shown)

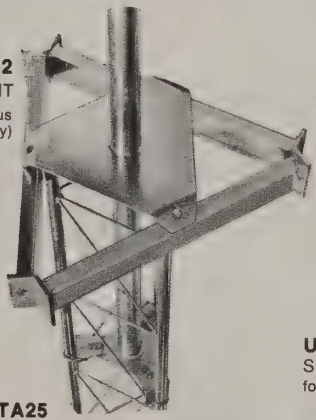


AB
HARDWOOD BEARING
for use on 25AG-4 Top Section
for 2″ OD tubing

DM25G 2
FACE DISH MOUNT
for 4 foot grid dish maximum



APL25G
TOP BEACON PLATE



25TDM2
TOP DISH MOUNT
(see drawing Page C-760786 for various sizes and assembly)

TA25
TORQUE ARM STABILIZER
ASSEMBLY

BAS25G
BEARING/ACCESSORY
SHELF

UHF25G
SIDE ARM MOUNT
for UHF & FM antennas

ADDITIONAL INFORMATION

Do not install towers and masts near power lines. All towers or masts should be installed twice the height of the installation away from power lines since every electrical wire must be considered dangerous.

ROHN recommends anti-climb sections on all towers to prevent unauthorized persons from climbing towers.

All towers and masts should be installed and dismantled by experienced and trained personnel.
All types of antenna installations should be thoroughly inspected by qualified personnel and remarked with hazard and warning labels at least twice a year to insure safety and proper performance.

All antenna installations must be grounded per local and national codes.

The mixing of so-called interchangeable copies of ROHN products is dangerous and voids all engineering or warranty data supplied by ROHN. Materials used by the so-called copies are not the same quality and have not been tested or engineered by ROHN to conform to the same quality standards. Mixing of non-ROHN items may endanger the lives of your customers and cause serious tower failures and financial misfortune for all concerned.

Form 84-1393

PRINTED IN U.S.A.

SHEET D-2071
(Replaces D-1739)

April 1, 1983

#25 TOWER

PART NUMBER		WT.
25G	10' tower section	40
20BG	3' top section for use as home TV top section	8-1/2
25AG	9' top section for use as home TV top section	31
/ ST25AG /	5' short top section for use as home TV top section	18
/ 25AG1 /	Top section for use with communication antenna. Mast support tube is 1-1/4" galv. pipe, threaded on top and projecting 12" above apex of side rails.	31
25AG2	Top section for use with communication antenna. Mast support tube is 2-1/4" O.D. tubing, 36" total length, extending 18" above apex of side rails.	31
25AG3	Top section for use with communication antenna. Mast support tube is 2-1/4" O.D. tubing, extending 12" above apex of side rails. A 2" O.D. antenna stub will fit snugly inside support tube.	31
25AG4	8' top section for use with communication antenna. Upper end terminates in 11" dia. flat, circular plate with 2-1/4" dia. hole in center.	31
/ 25AG5 /	Top section for use with communication antenna. Mast support tube is 2-3/4" O.D. and 2-9/16" I.D. tubing, 18" total length.	31
25TG	10' tapered base section	60
*25RG	10' insulator section for 25G tower (includes three #10470 post insulators)	74
25ACL	10' anti-climb section (for #25 and #20 towers)	115
/ 25ACL3 /	3 anti-climb metal sheets for attaching to tower section	65
25JBK	Joint bolt kit	1/2
APL25G	Beacon plate	14
SB25G	3'4" short base section for concrete	10
*SBH25G	3'4" hinged short base section for concrete	14
*SDB25G	Single drive base	20
*BPC20G	Concrete base plate	13
*BPC25G	Concrete base plate	27
3/4X12PP	Pier pin (for BPC20G, BPC25G, or 25TG - one required)	1
*BPH25G	Hinged base plate for concrete	21
1/2X12BB	Concrete base bolt with double nuts (for BPH25G - four required)	1/2
*FR25G	Flat roof mount	24
*PR25G	Peak roof mount	14
*BP25G	Base plate (for use with drive rods)	7
*DR25G	2' drive rods (set of 3)	6
DT25	Drive tool	1
RP25G	Rotor post	3
RP25GCM	Rotor post	2
AS25G	Accessory shelf. Triangular plate for mounting Ham "M" rotor or mast bearing. Mounts inside of tower. When using Model 400 Rotor, plate must be redrilled.	4
GA25G	Guy assembly (bracket with torque bars)	10
GB25G	Guy bracket only	6
HB25AG	Adjustable house bracket (0 to 15")	8
HB25BG	Adjustable house bracket (0 to 24")	11
HB25CG	Adjustable house bracket (0 to 36")	17
HBU	Universal house bracket (6" to 30")	15
EB2525G	Eave bracket (universal)	7
TB50	Tower bushing for 25AG and ST25AG tops (1-1/4" I.D. x 2" O.D.)	1/2
TB75	Tower bushing for 25AG and ST25AG tops (1-1/2" I.D. x 2" O.D.)	1/2
AB	Amateur bearing for use with 25AG4 top (2" x 4" x 10" hardware)	1
TB3	Heavy duty thrust bearing, recommended for 2" O.D. tubing	2-1/2
TB4	Heavy duty thrust bearing, recommended for 3" O.D. tubing	3
BAS25G	Bearing/accessory shelf section for mounting AB, TB3, or TB4 bearing and rotor	18
UHF25G	Side arm mount for UHF and FM antennas	4
SA253UA	Side arm assembly, 2-1/2' to 3' extension, with 2-1/4" O.D. support tube	28
SAB25G2	Discontinued (Replaced by SA253UA)	15
SA25G224	Discontinued (Replaced by SA253UA)	22
SA25G67	67" side arm with 1-1/4" I.D. support tube for mounting TV receiving antenna (not recommended and must be guyed to resist twist)	25
/**TA25 /	Torque arm stabilizer assembly	35
/**25TDM2 /	Top dish mount w/2" O.D. mast (extends 2' above top plate)	40
/**25TDM2SP /	Top dish mount w/2" standard pipe (extends 3' above top plate)	50
/**25TDM2EH /	Top dish mount w/2" EH pipe (extends 3' above top plate)	60
/**25TDM25SP /	Top dish mount w/2-1/2" standard pipe (extends 3' above top plate)	65
/**DM25G2 /	Face dish mount w/2" (2-3/8" O.D.) 5' long standard pipe	42
WP25G	Work platform (for #25 and #20 towers)	10
SR245	Safety ring	8
EF2545	Aluminum erection fixture, 12' long (fits all models with 1-1/4" side rails) (use to raise one 10' section at a time)	18
P2545	Pole only for EF2545	10
H2545	Head only for EF2545	8

*Towers mounted on these bases must be bracketed or guyed.

**This item is not to be used without proper design consideration.

/ Available by special order only. Allow 60 days for delivery. /

The #20 tower is not recommended for commercial, ham, CB or guyed installations.

NOTE: The price on #25 sections will be higher on shipments to the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Refer to alphabetical/numerical price list for current prices.

F.O.B. PEORIA, ILLINOIS - or - BIRMINGHAM, ALABAMA.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

SHEET D-1740
(Replaces D-1425)

July 1, 1980

REFERENCE SHEET AND INSTALLATION INFORMATION

#25 BRACKETED TOWERS, NON-GUYED

INSTALLATION: Select a tower location sufficiently clear and out of falling distance of power lines since every electrical and telephone wire should be considered dangerous. The only safe distance from power lines is at least twice the height of tower, mast, and antenna. Tower should be installed by experienced and trained personnel. All antenna installations must be grounded per local or national codes.

BASE: The size of the concrete base for a 50' #25 tower, with a house bracket 12' aboveground, is 3' deep by 18" square. For cases of loose soil, etc., the base must be larger. Spread about 2" of gravel in bottom of hole prior to setting base assembly. The base assembly should be attached to the first 10' section prior to setting into gravel. After setting base assembly on gravel, fill another 3" with gravel around legs of base. This allows the tower base legs to extend the required amount below the base of the concrete, thus allowing for drainage of moisture into the gravel. The base assembly and first 10' section should be leveled, plumbed, and temporarily guyed or braced while pouring the concrete. This will insure a plumb tower after installation. Check tower to assure it is plumb and level after pouring concrete. Do not pull base up into the concrete to level it and do not drive it hard into ground as this plugs leg holes and prevents moisture drainage. Crown the top of the concrete slightly to prevent water accumulation. Do not use drive rods as a base for tower when set in concrete.

HEIGHT OF TOWER & BRACKET USES: House brackets must be used and must be mounted at least 12' aboveground to be effective. The #25 tower should not extend more than 33' above a house bracket. (Note: Two house brackets are to be used, equally spaced, on the 80' tower.) To secure the house bracket, use lag screws no smaller than 3/8" x 2". A special effort should be made to locate the house bracket such that the lag screws go through the siding into a stud. Brackets fastened to the siding only will not hold in a high wind. Tighten the house bracket U-bolts only enough to prevent looseness. Do not dent or flatten the tower upright members by excessively tightening U-bolts.

BOLTS: Nuts and bolts are located in tower legs. Installers are urged to use a 10" lining-up punch that tapers from about 1/2" to 5/32" diameter over a 6-1/2" length. If bolts cannot be pushed through the holes with the heel of the hand while rocking the tower, do not hammer them through. Carefully drive the punch into the hole just enough to slightly enlarge it. The leg bolt hole should be just large enough to admit the bolt. Never drill out the holes. Be sure to tighten all leg bolts until they partially flatten the sleeves, causing the sleeves to actually grip the legs inside. Always replace stripped bolts. Upon completing an installation, there should be no vertical movement between tower sections at the joints when the tower is deliberately swayed from side to side.

MISCELLANEOUS: Installation is greatly hastened and simplified by the use of an erection fixture. Do not use it to lift more than the weight of one tower section at a time. Anti-climb sections are recommended for all towers to prevent unauthorized persons from climbing tower.

CAUTION: ... Be sure hinge bolts on hinged type accessories are loosened before attempting to hinge tower over. Hinge up no more than 33' of #25 tower only. All hinged type bases are recommended to be used to raise tower only without antenna. When raising and lowering tower on any type of hinge base or hinge section, the loads applied for hinging the tower must be applied equally on both sides of tower in order to reduce the possibility of twist on tower and hinges at the base. Special care must be taken to avoid the use of raising and lowering methods which may cause damage to tower or hinges.

All information is based upon antennas with not more than 2 square feet of area in a 20 psf (70 mph) wind load and a safety factor, with antenna installed at tower apex.

See Chart B-691119 for more information on non-guyed towers.

NOTE: All types of antenna installations should be thoroughly inspected by qualified personnel at least twice a year and remarked with hazard and warning labels to insure safety and proper performance.

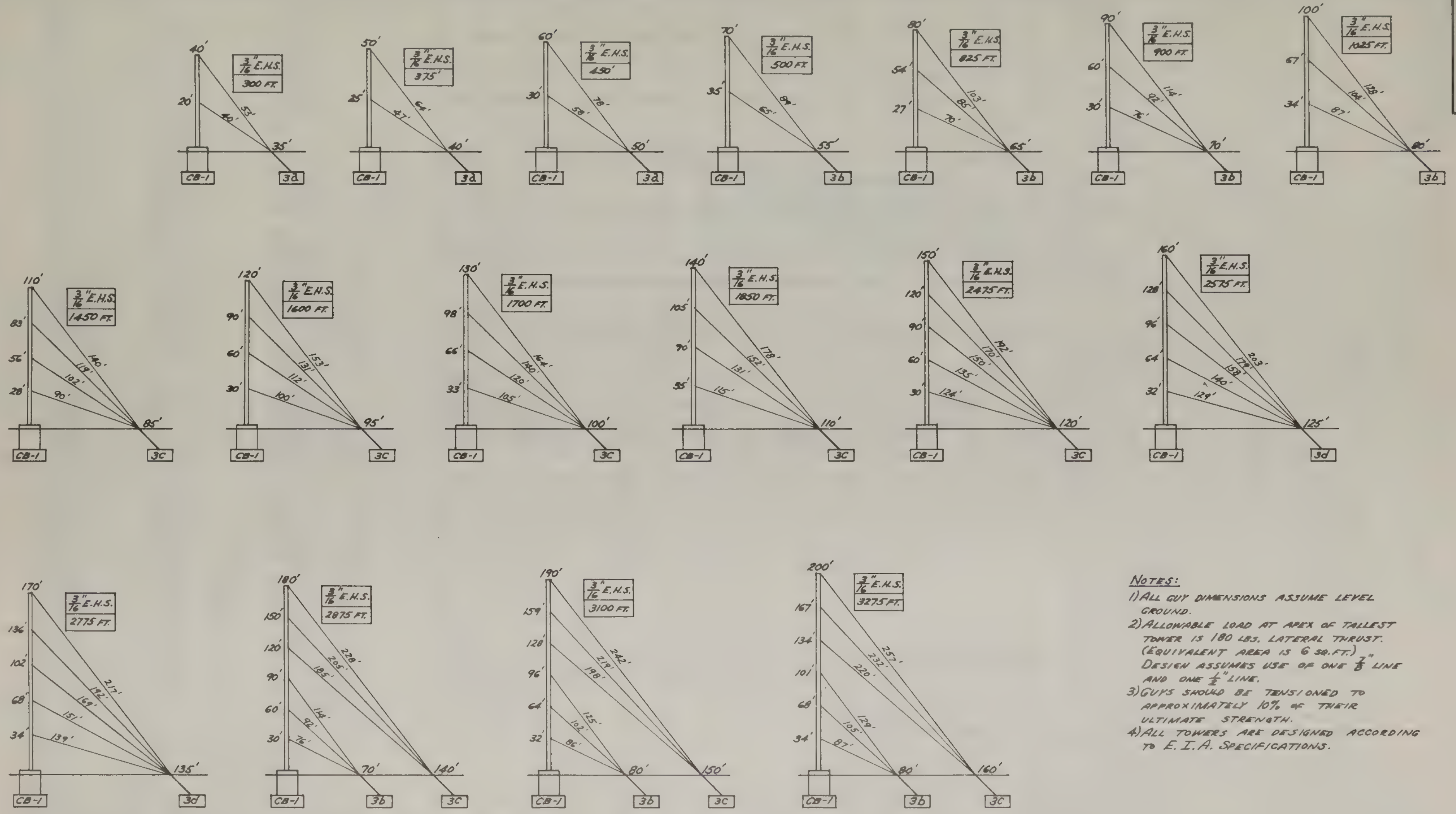
Dismantling of any tower should be done by professional and experienced installers a section at a time with the use of an erection fixture.

PART NUMBER	
25G030BRKT	30' Complete Bracketed Tower
25G040BRKT	40' Complete Bracketed Tower
25G050BRKT	50' Complete Bracketed Tower
25G060BRKT	60' Complete Bracketed Tower
25G070BRKT	70' Complete Bracketed Tower
25G080BRKT	80' Complete Bracketed Tower

Refer to alphabetical/numerical price list for reference sheet prices on Complete #25G bracketed Towers.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

C-640603


40' 20' 3/16" E.H.S. 300 FT. 53' 40' 35' CB-1 3d
50' 25' 3/16" E.H.S. 375' 64' 47' 40' CB-1 3d
60' 30' 3/16" E.H.S. 450' 78' 59' 50' CB-1 3d
70' 35' 3/16" E.H.S. 500 FT. 84' 65' 55' CB-1 3b
80' 54' 27' 3/16" E.H.S. 825 FT. 103' 85' 70' 65' CB-1 3b
90' 60' 30' 3/16" E.H.S. 900 FT. 114' 92' 76' 70' CB-1 3b
100' 67' 34' 3/16" E.H.S. 1025 FT. 128' 104' 87' 80' CB-1 3b
110' 83' 56' 28' 3/16" E.H.S. 1450 FT. 140' 119' 102' 90' 85' CB-1 3C
120' 90' 60' 30' 3/16" E.H.S. 1600 FT. 153' 131' 112' 100' 95' CB-1 3C
130' 98' 66' 33' 3/16" E.H.S. 1700 FT. 164' 140' 120' 105' 100' CB-1 3C
140' 105' 70' 35' 3/16" E.H.S. 1850 FT. 178' 152' 131' 115' 110' CB-1 3C
150' 120' 90' 60' 30 3/16" E.H.S. 2475 FT. 192' 170' 150' 135' 124' 120' CB-1 3C
160' 128' 96' 64' 32' 3/16" E.H.S. 2575 FT. 203' 179' 158' 140' 129' 125' CB-1 3d
170' 136' 102' 68' 34' 3/16" E.H.S. 2775 FT. 217' 192' 169' 151' 139' 135' CB-1 3d
180' 150' 120' 90' 60' 30' 3/16" E.H.S. 2875 FT. 228' 205' 185' 114' 92' 76' 70' 140' CB-1 3b 3C
190' 159' 128' 96' 64' 32' 3/16" E.H.S. 3100 FT. 242' 219' 198' 125' 102' 86' 80' 150' CB-1 3b 3C
200' 167' 134' 101' 68' 34' 3/16" E.H.S. 3275 FT. 257' 232' 220' 129' 105' 87' 80' 160' CB-1 3b 3C

NOTES:

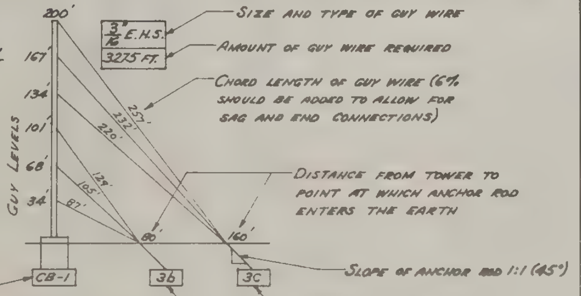
1) ALL GUY DIMENSIONS ASSUME LEVEL GROUND.

2) ALLOWABLE LOAD AT APEX OF TALLEST TOWER IS 180 LBS. LATERAL THRUST. (EQUIVALENT AREA IS 6 SQ.FT.) DESIGN ASSUMES USE OF ONE 7/8" LINE AND ONE 1/2" LINE.

3) GUYS SHOULD BE TENSIONED TO APPROXIMATELY 10% OF THEIR ULTIMATE STRENGTH.

4) ALL TOWERS ARE DESIGNED ACCORDING TO E.I.A. SPECIFICATIONS.

EXPLANATION OF CHART



SIZE AND TYPE OF GUY WIRE

AMOUNT OF GUY WIRE REQUIRED

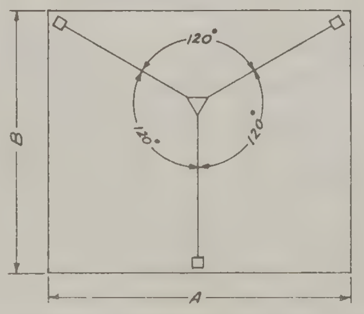
CHORD LENGTH OF GUY WIRE (6% SHOULD BE ADDED TO ALLOW FOR SAG AND END CONNECTIONS)

DISTANCE FROM TOWER TO POINT AT WHICH ANCHOR ROD ENTERS THE EARTH

SLOPE OF ANCHOR ROD 1:1 (45°)

CONCRETE BASE PIER TO BE USED (SEE DWG. No. C-610621 FOR DETAILS)

CONCRETE BLOCK No. TO BE USED (SEE DWG. No. C-620643-R FOR DETAILS)



FOR SPACE REQUIREMENT REFER TO DWG. No. C-640531

NO	DESCRIPTION	DATE	BY
R2	ADDED EIA DESIGNATION TO TITLE BLOCK	2-17-76	WR
1	H.S. GUY WIRE TO E.H.S. GUY WIRE	8-21-71	A.E.D.

REVISIONS

DRAWN AED
CHECKED ck
APPROVED RAK
DATE 6-23-64
SCALE NONE

WIND LOAD = EIA ZONE "A"
0-300' = 30 PSF

ROHN MANUFACTURING
PEORIA, ILLINOIS

TITLE
GUYING DETAILS FOR MODEL 25 TOWER

DRAWING NO.
C-640603-R2

ILLINOIS B/P 1000-H

PARTS LIST P-421
(Replaces P-324)

May 1, 1983

PARTS LIST #25G GUYED TOWER

Zone "A" Wind Load

6 Sq. Ft. of Allowable Load

Tower Height	25G	25AG2	BPC25G with 3/4"x12" PP	APL25G and SA253UA	GA25G	G.W. 3/16" E.H.S.	C.C.M. 3/16"	TH. 1/4"	T.B. 3/8"x6" E&E	GAC 253	GAC 255
40'	3	1	1		2	300'	36	12	6	3	
50'	4	1	1		2	375'	36	12	6	3	
60'	5	1	1		2	450'	36	12	6	3	
70'	6	1	1		2	500'	36	12	6	3	
80'	7	1	1		3	825'	54	18	9	3	
90'	8	1	1		3	900'	54	18	9	3	
100'	9	1	1		3	1100'	54	18	9	3	
110'	10	1	1		4	1500'	72	24	12		3
120'	11	1	1		4	1600'	72	24	12		3
130'	12	1	1		4	1700'	72	24	12		3
140'	13	1	1		4	1850'	72	24	12		3
150'	14	1	1		5	2500'	90	30	15		3
160'	16		1	1	5	2575'	90	30	15		3
170'	17		1	1	5	2775'	90	30	15		3
180'	18		1	1	6	2875'	108	36	18	6	
190'	19		1	1	6	3100'	108	36	18	6	
200'	20		1	1	6	3275'	108	36	18	6	

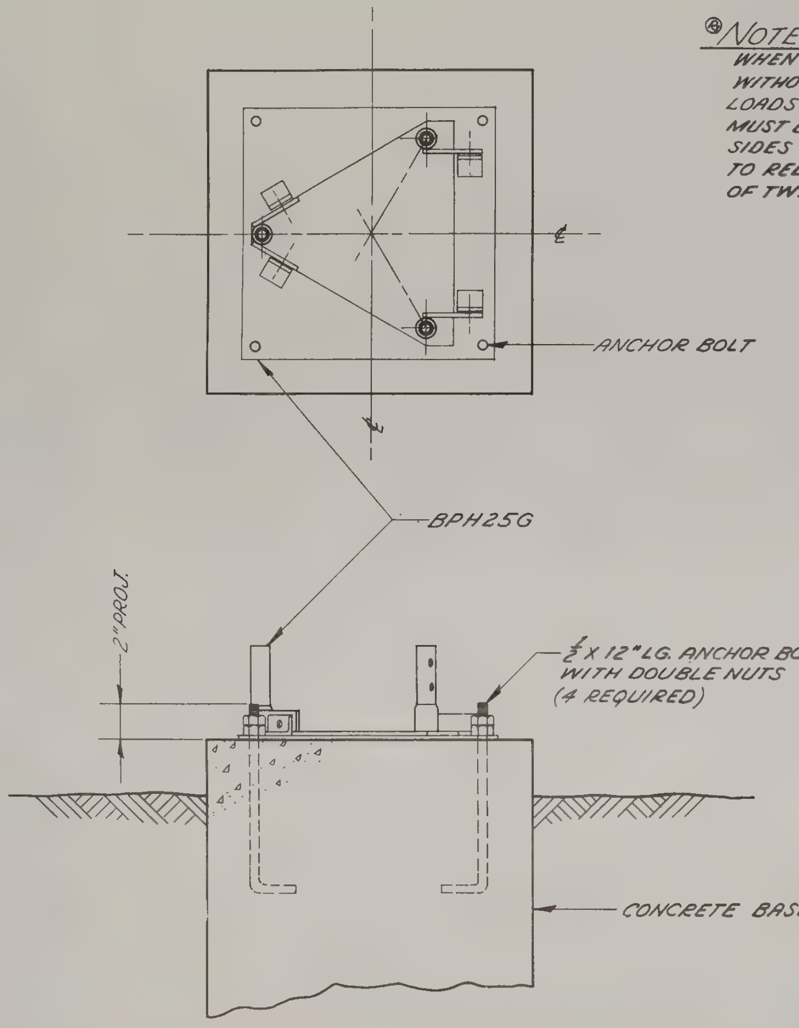
Items shown above are necessary for complete "ground" guyed towers.

For "roof" towers a flat roof mount (FR25G) is substituted for the concrete base plate (BPC25G) and wall anchors (GAWP25) are substituted for the concrete anchors (GAC25).

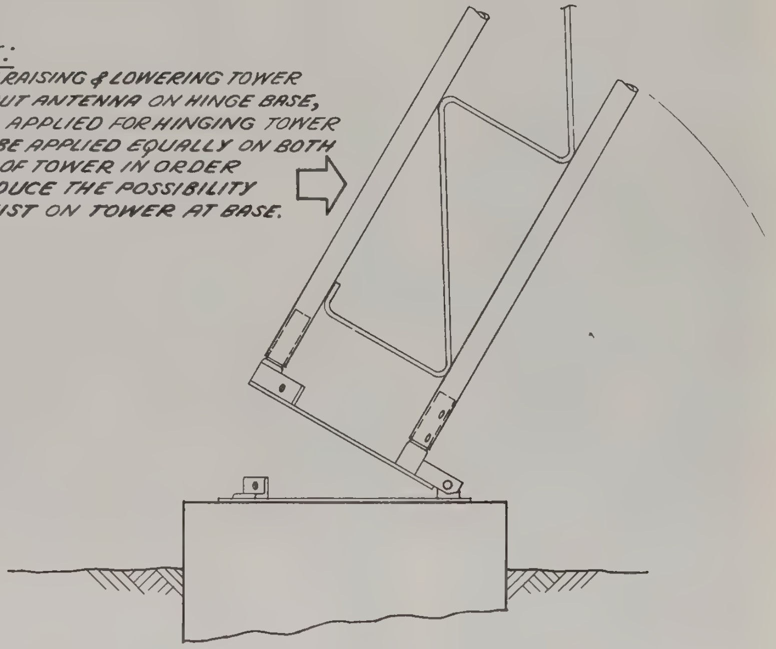
When ordering specify "roof" or "ground".

Anchor grounding (AGK) and base grounding (BGK) of all towers are recommended by EIA and Rohn. However, grounding is not included in tower prices. See appropriate price list for grounding material.

All types of antenna installations should be thoroughly inspected by qualified personnel and remarked with hazard and warning labels at least twice a year to insure safety and proper performance.



Ⓐ NOTE:
WHEN RAISING & LOWERING TOWER WITHOUT ANTENNA ON HINGE BASE, LOADS APPLIED FOR HINGING TOWER MUST BE APPLIED EQUALLY ON BOTH SIDES OF TOWER IN ORDER TO REDUCE THE POSSIBILITY OF TWIST ON TOWER AT BASE.



IMPORTANT: BE SURE HINGE BOLTS ARE LOOSENED BEFORE ATTEMPTING TO FOLD TOWER OVER.

Ⓑ NOTE: DUE TO VARIABLES INVOLVED IN ROOF AND OTHER INSTALLATIONS, IT SHALL BE THE CUSTOMER'S OR INSTALLER'S RESPONSIBILITY TO PROVIDE STRUCTURALLY ADEQUATE SUPPORTS FOR PIER & ANCHOR CONNECTIONS. IT MAY ALSO BE NECESSARY FOR THE CUSTOMER OR INSTALLER TO SECURE THE SERVICE OF A LOCAL ENGINEER TO DETERMINE THAT INSTALLATION COMPLIES WITH LOCAL BUILDING CODES.

NOTE: TOWERS MOUNTED ON THIS BASE MUST BE BRACKETED OR GUYED

NO.	DESCRIPTION	DATE	BY
R2	ADDED NOTE	9-17-76	OH
R1	REVISED NOTE	8-27-75	OH

REVISIONS

ROHN® MANUFACTURING
DIVISION OF UNARCO

TITLE
BPH25G INSTALLATION

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FILE NO.

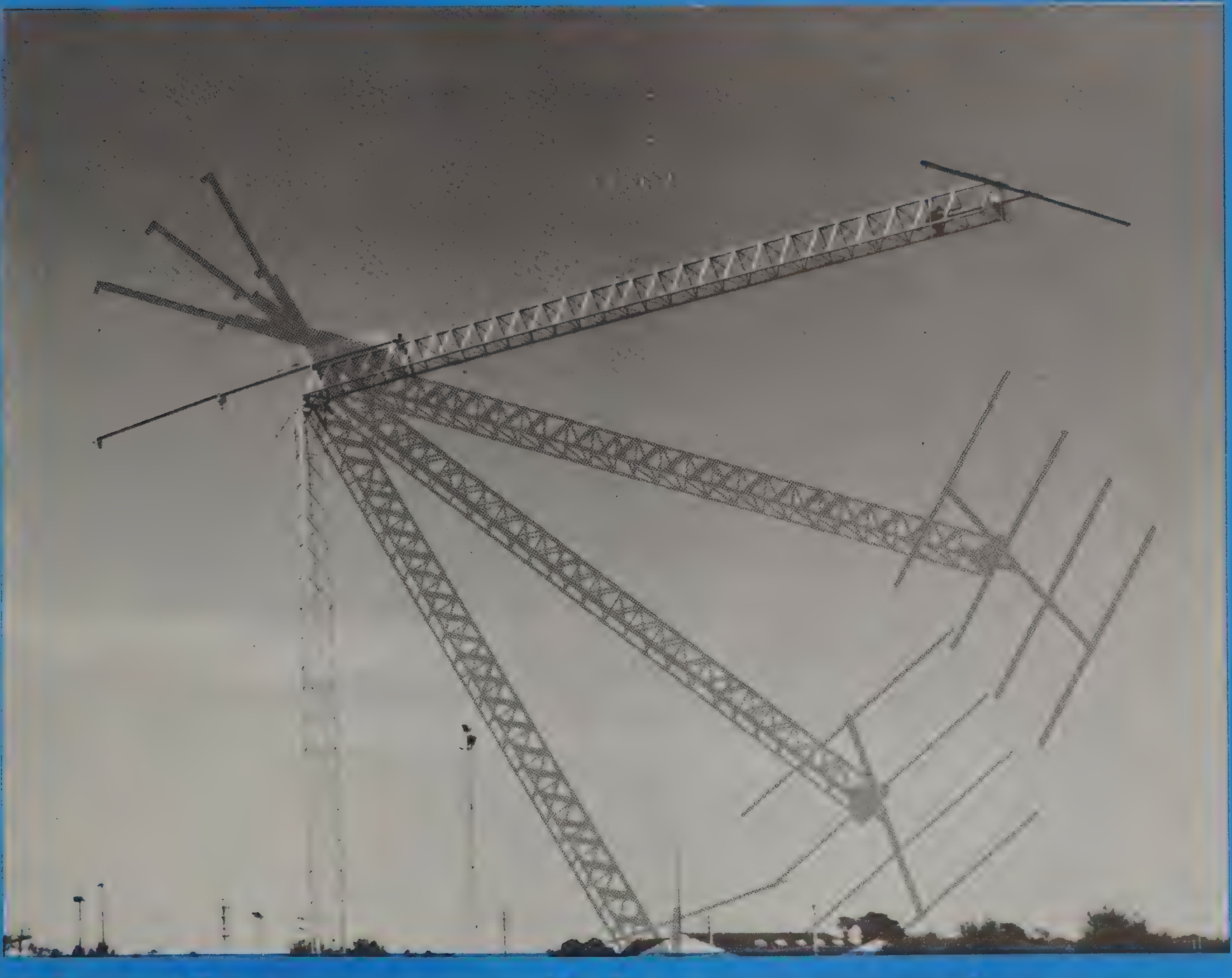
SCALE ~	MATERIAL	FINISH	WT.
DWN. BY O.H.	DATE 2-12-75	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
CK'D. BY	DATE 3-20-75	TOLERANCES DEC. ± FRAC. ± ANGLES ±	DWG. NO. C-750112 R2
APP'D. ENGRG. CW	DATE 3-20-75		
APP'D. SALES	DATE 3-20-75		

GAF 880-250 2-72 48194

PRINTED IN U.S.A.

ROHN TOWERS®

"FOLD-OVER" TOWERS



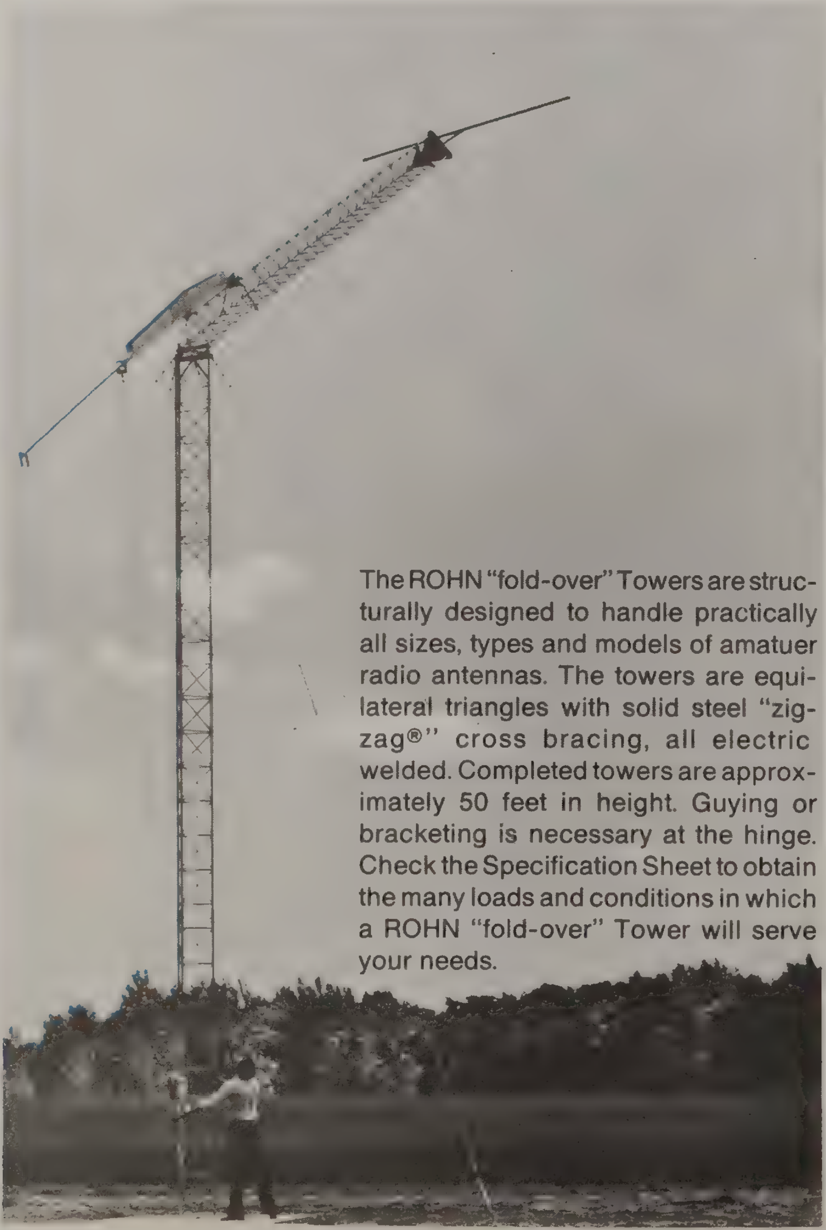
Easily accessible to service antenna and rotator instantly.

Get to the Top. . .

ROHN "fold-over" Towers offer unbeatable safety. These towers let you work completely on the ground for antenna and rotor installation and servicing. This eliminates the hazard of climbing the tower and trying to work at heights that could mean serious injury in a fall. Also, the "fold-over" eliminates the risks of a crank-up or telescoping tower. So use the tower that reduces the risks of physical danger to an absolute minimum . . . the ROHN "fold-over"!

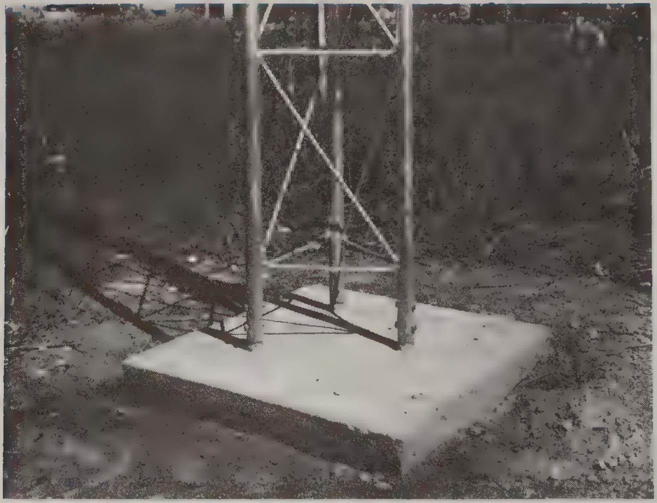
NOTE: ROHN does not recommend the use of crank-up towers. Crank-up towers can be dangerous even when operated with extreme care.

In seconds the entire tower top is folded over and accessible. When work is completed, tower is easily returned to up-right position and you never leave the ground!



The ROHN "fold-over" Towers are structurally designed to handle practically all sizes, types and models of amatuer radio antennas. The towers are equilateral triangles with solid steel "zig-zag®" cross bracing, all electric welded. Completed towers are approximately 50 feet in height. Guying or bracketing is necessary at the hinge. Check the Specification Sheet to obtain the many loads and conditions in which a ROHN "fold-over" Tower will serve your needs.

without ever leaving the ground!

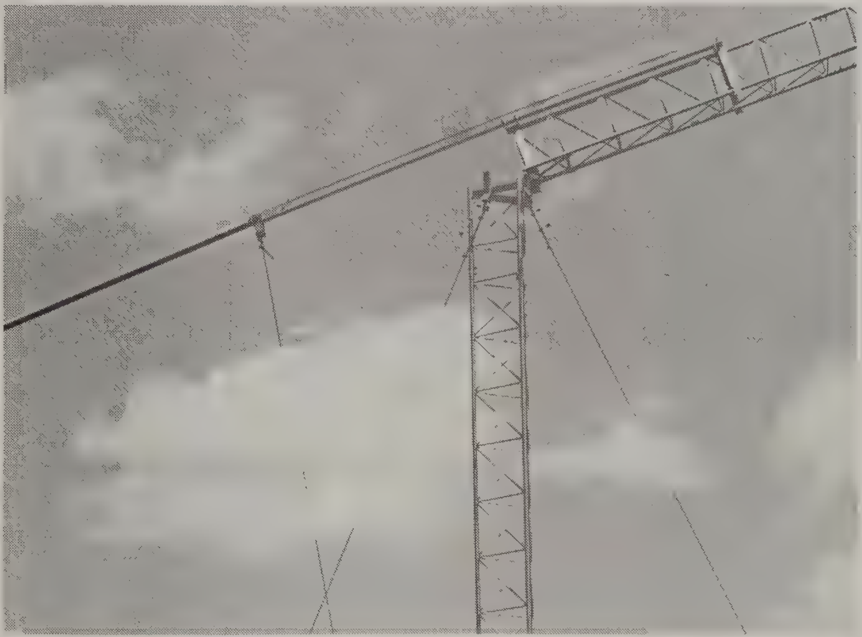

Shows installation of tower base section in concrete. Flat surface installation base also available.

EASE OF INSTALLATION

ROHN "fold-over" Towers are quickly and easily installed. Photos indicate the general installation of these towers. Complete installation instructions included with every tower.

HOT DIP GALVANIZED . . . AFTER FABRICATION

ROHN is the only U.S. communication tower manufacturer that has owned and operated an in-plant galvanizing facility for more than 25 years. Our "Hot Dip" process extends the life and durability of your tower.


The boom and hinge section, together with hinged guying, are detailed here.

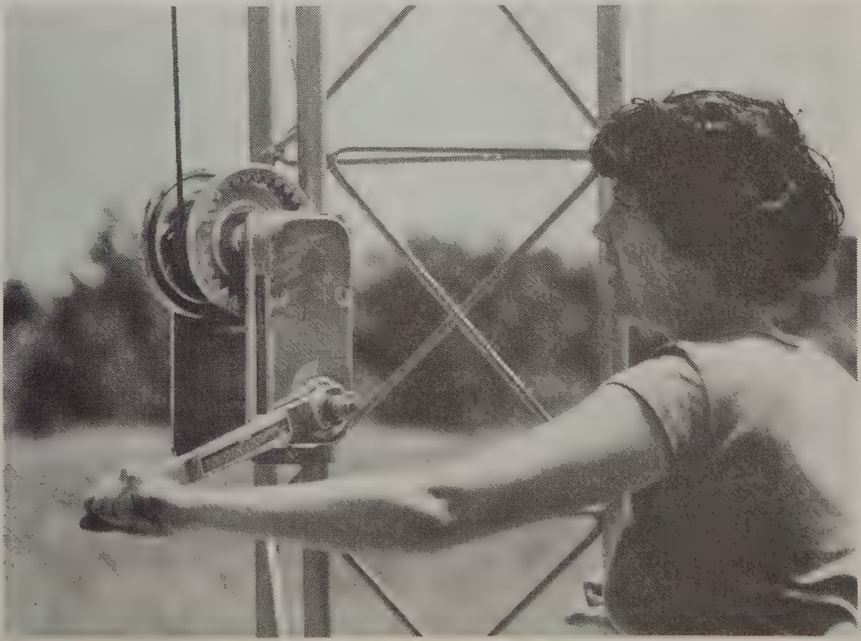
ADAPTABILITY

Two sizes for most every requirement:
No. 25 "fold-over" — uses No. 25 tower sections, which are 12½" equilateral triangle design.
No. 45 "fold-over" — uses No. 45 heavy duty tower sections, which are 18" equilateral triangle design.

"Fold-over" component parts may be purchased separately in order to convert your standard No. 25 or No. 45 Tower into a "fold-over".

ACCESSORIES

See catalog for complete details.


Close-up of winch and crank mechanism.

Quality With Galvanized Protection

- Complete packaged ROHN "fold-over Tower includes the necessary 10' tower sections, a top section, a short base section or flat roof mount, complete hinged section, boom, windlass with cable and hardware.

SPECIFICATIONS FOR ROHN FOLD-OVER TOWERS

ITEMS			MODEL FK 25			MODEL FK 45		
			48'	58'	68'	44'	54'	64'
Max. Lifting Capacity:			(All Winch Cable - 1/4" Aircraft)					
Safe Load At Apex, Lbs.			130	100	100	190	135	135
Antenna Loads - Safe: At Apex			(Using 3/16" HS Guy Wire)			(Using 1/4" HS Guy Wire)		
With Guys At Hinge Only	20 PSF	Area, Sq. Ft.	6.2	2.3	2.3	15.2	8.3	8.3
		Weight, Lbs.	130	100	100	190	135	135
	30 PSF	Area, Sq. Ft	3.0	—	—	8.9	3.8	3.8
		Weight, Lbs.	130	—	—	190	135	135
With Guys At Apex And At Hinge	20 PSF	Area, Sq. Ft.	13.3	14.1	11.7	29.1	33.3	28.4
		Weight, Lbs.	130	100	100	190	135	135
	30 PSF	Area, Sq. Ft	7.7	7.9	6.2	18.1	20.5	17.2
		Weight, Lbs.	130	100	100	190	135	135
Physical Properties:								
Tower Height Above Base, Ft.			48	58	68	44	54	64
Distance - Base to Hinge, Ft.			22.5	22.5	32.5	19	19'	29
Distance - Hinge to Apex, Ft.			25.5	35.5	35.5	25	35	35
Radius Required for Boom, Ft.			18.6	18.6	18.6	16	16	16
Weight - Including Boom, Lbs.			410	450	490	565	635	705
Width of Tower Triangle, In.			12.5	12.5	12.5	18	18	18
Side Rail Diameter, In.			1.25	1.25	1.25	1.25	1.25	1.25
Side Rail Thickness, Ga. No.			16	16	16	14	14	14

All Fold-Over Towers Must Be Guyed Or Bracketed At The Hinge.

Date: 12-5-83

NOTE: Antenna with large booms or elements used on ROHN "fold-over" Towers should always have additional guy at tower apex.

Do not install towers and masts near power lines. All towers or masts should be installed twice the height of the installation away from power lines since every electrical wire must be considered dangerous.

ROHN recommends anti-climb sections on all towers to prevent unauthorized persons from climbing towers.

All towers and masts should be installed and dismantled by experienced and trained personnel.
All types of antenna installations should be thoroughly inspected by qualified personnel and remarked with hazard and warning labels at least twice a year to insure safety and proper performance.

All antenna installations must be grounded per local and national codes.

The mixing of so-called interchangeable copies of ROHN products is dangerous and voids all engineering or warranty data supplied by ROHN. Materials used by the so-called copies are not the same quality and have not been tested or engineered by ROHN to conform to the same quality standards. Mixing of non-ROHN items may endanger the lives of your customers and cause serious tower failures and financial misfortune for all concerned.

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ROHN®
6718 West Plank Road, P.O. Box 2000
Peoria, Illinois 61656
U.S.A.

Form No. 83-1315 R1

"WARNING: INSTALLATION OR DISMANTLING OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS. FOR YOUR SAFETY, FOLLOW THE CATALOG DIRECTIONS."

INSTALLATION AND DISMANTLING INSTRUCTIONS -- YOU, YOUR ANTENNA, AND SAFETY

Each year hundreds of people are killed, mutilated, or receive severe permanent injuries when attempting to install or dismantle an antenna. In many of these cases, the victim was aware of the dangers of electrocution and failure but did not take adequate steps to avoid the hazard.

For your safety and to help you achieve a good installation, please READ and FOLLOW the safety precautions below. THEY MAY SAVE YOUR LIFE!

1. If you are installing or dismantling an antenna for the first time, please, for your own safety as well as others, seek PROFESSIONAL ASSISTANCE. Consult your dealer. He can explain which mounting or dismantling method to use for the size and type antenna you are about to install or dismantle.

2. Select your installation site with safety, as well as performance, in mind. (See information on Site Selection.) REMEMBER: POWER LINES AND PHONE LINES LOOK ALIKE. FOR YOUR SAFETY, ASSUME THAT ANY OVERHEAD LINES CAN KILL YOU.

3. Call your power company. Tell them your plans and ask them to look at your site. This is little inconvenience, considering YOUR LIFE IS AT STAKE.

4. Before you begin, plan your installation or dismantling procedure carefully. Successful installation or dismantling of a mast or tower is largely a matter of coordination. Each person should be assigned to a specific task and should know what to do and when to do it. One person should be designated as the "boss" to call out instructions and watch for signs of trouble.

5. When installing or dismantling your antenna, REMEMBER: DO NOT use a metal ladder. DO NOT work on a wet or windy day or if a thunderstorm is approaching. DO dress properly -- shoes with rubber soles and heels, rubber gloves, long sleeve shirt or jacket.

6. If the assembly starts to drop, get away from it and let it fall. REMEMBER: The antenna, mast, cable, and metal guy wires are all excellent conductors of electrical current. Even the slightest touch of any of these parts to a power line completes an electrical path through the antenna and the installer -- THAT'S YOU!

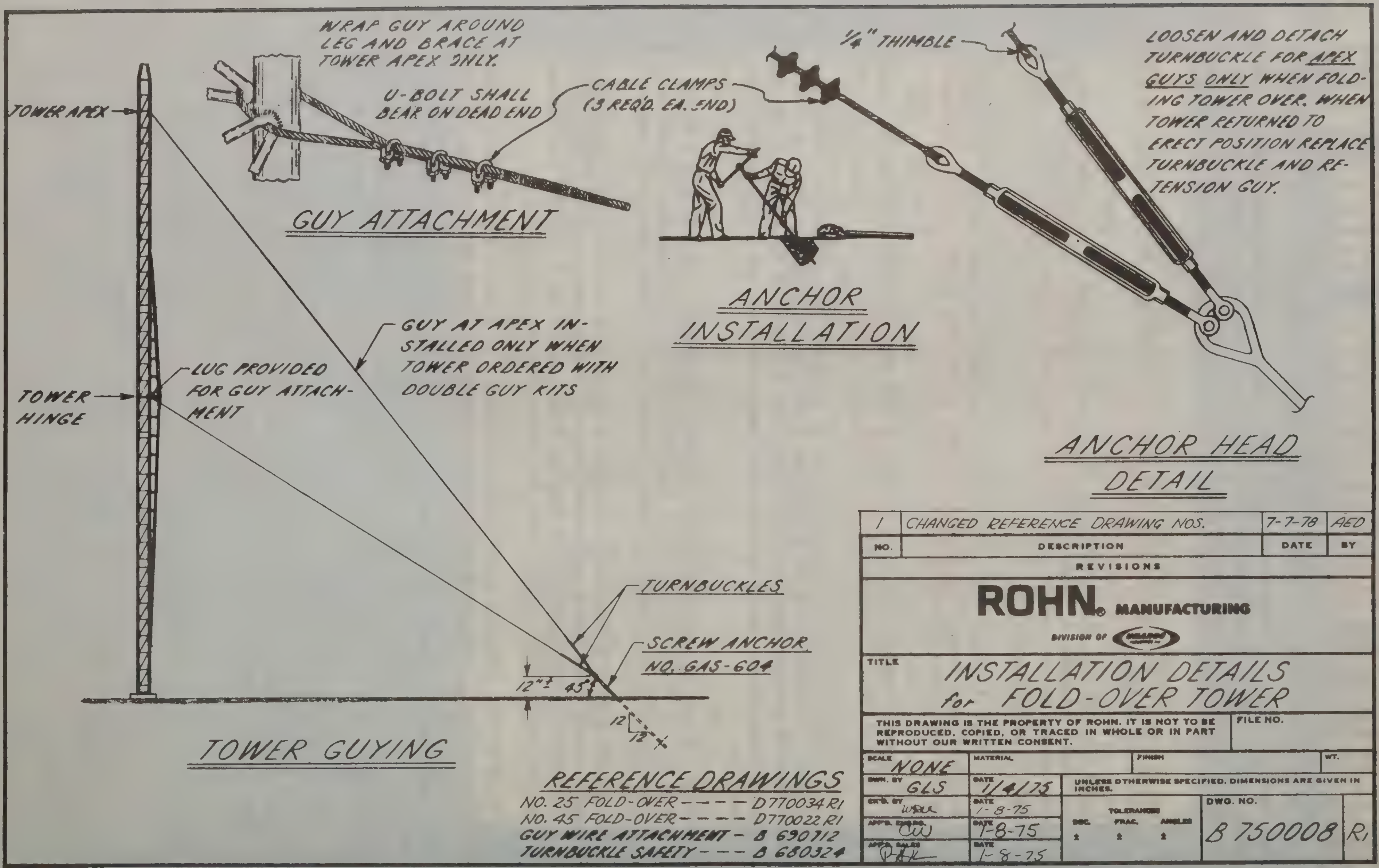
7. If any part of the antenna system should contact a power line -- DON'T TOUCH IT OR TRY TO REMOVE IT YOURSELF. CALL YOUR LOCAL POWER COMPANY. They will remove it safely.

8. If an electrical accident should occur -- DON'T grab hold of the person in contact with the power line or you too will be electrocuted. Use a DRY board, stick or rope to push or pull the victim away from the antenna. If the victim has stopped breathing, administer artificial respiration -- and stay with it. Have someone call for medical help.

SITE SELECTION: Before attempting to install your antenna, think where you can best place your antenna for safety and performance. To determine a safe distance from wires, power lines, and trees: 1) Measure the height of your antenna; 2) Add this length to the length of your tower or mast; and then, 3) Double this total for the minimum recommended safe distance.

If you are unable to maintain this safe distance, STOP! GET PROFESSIONAL HELP. Generally, the higher the antenna is aboveground, the better it performs. Good practice is to install your antenna above the roof line and away from power lines and obstructions. Remember that the FCC limits your CB antenna height. If possible, find a mounting place close to your set, where the antenna wire can take a short, vertical drop on the outside of the house for entry through a wall or window near the set. Your dealer carries a complete line of installation hardware.

100181


WRAP GUY AROUND LEG AND BRACE AT TOWER APEX ONLY.
U-BOLT SHALL BEAR ON DEAD END
CABLE CLAMPS (3 REQ'D. EA. END)
GUY ATTACHMENT
TOWER APEX
TOWER HINGE
LUG PROVIDED FOR GUY ATTACHMENT
GUY AT APEX INSTALLED ONLY WHEN TOWER ORDERED WITH DOUBLE GUY KITS
TURNBUCKLES
SCREW ANCHOR NO. GAS-604
12"±
45°
12
12
TOWER GUYING
ANCHOR INSTALLATION
1/4" THIMBLE
LOOSEN AND DETACH TURNBUCKLE FOR APEX GUYS ONLY WHEN FOLDING TOWER OVER. WHEN TOWER RETURNED TO ERECT POSITION REPLACE TURNBUCKLE AND RE-TENSION GUY.
ANCHOR HEAD DETAIL

REFERENCE DRAWINGS

NO. 25 FOLD-OVER - - - - D770034 R1
NO. 45 FOLD-OVER - - - - D770022 R1
GUY WIRE ATTACHMENT - B 690712
TURNBUCKLE SAFETY - - - B 680324

NO.	DESCRIPTION	DATE	BY
1	CHANGED REFERENCE DRAWING NOS.	7-7-78	AED

REVISIONS

ROHN® MANUFACTURING
DIVISION OF

TITLE
INSTALLATION DETAILS for FOLD-OVER TOWER

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FILE NO.

SCALE NONE	MATERIAL	FINISH	WT.
DWN. BY GLS	DATE 1/4/75	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
CK'D. BY WBU	DATE 1-8-75	TOLERANCES DEC. ± FRAC. ± ANGLES ±	DWG. NO. B 750008 R1
APP'D. ENGRG. CW	DATE 1-8-75		
APP'D. SALES	DATE 1-8-75		

GAF 880-250 2-72 48191

PRINTED IN U.S.A.

SHEET D-2053
(Replaces D-1952)

January 1, 1983

NO. 25 FOLD-OVER TOWER

(Hot Dip Galvanized Finish *After* Fabrication)

PART NUMBER		WT.
FK2548	Complete 48' Tower - Hinge at 22.5'	410

Quantity	*Individual Part No.		WT.
3	25G	Tower Sections w/Bolts and Nuts	120
1	25AG4	Top Section w/Bolts and Nuts	31
1	SB25G	Short Base Section	10
1	HS25FO	Hinge Section w/Bolts and Nuts	56
1	BM25FOT	Boom Assembly w/Connections and Hardware	157
1	WHA2545FOT	Winch Assembly w/Hardware	26
1	ACLP25FOT	A-Clamp Assembly w/Hardware	4
35'	1/4GAC	1/4" Aircraft Cable	
1	1/2THH	1/2" Heavy Thimble	
2	1/4CCF	1/4" Cable Clamps	

Ground Installation - Must be Guyed or Bracketed at Hinge

PART NUMBER		WT.
FK2558	Complete 58' Tower - Hinge at 22.5'	450

Quantity	*Individual Part No.		WT.
4	25G	Tower Sections w/Bolts and Nuts	160
1	25AG4	Top Section w/Bolts and Nuts	31
1	SB25G	Short Base Section	10
1	HS25FO	Hinge Section w/Bolts and Nuts	56
1	BM25FOT	Boom Assembly w/Connections and Hardware	157
1	WHA2545FOT	Winch Assembly w/Hardware	26
1	ACLP25FOT	A-Clamp Assembly w/Hardware	4
35'	1/4GAC	1/4" Aircraft Cable	
1	1/2THH	1/2" Heavy Thimble	
2	1/4CCF	1/4" Cable Clamps	

Ground Installation - Must be Guyed or Bracketed at Hinge

PART NUMBER		WT.
FK2568	Complete 68' Tower - Hinge at 32.5'	490

Quantity	*Individual Part No.		WT.
5	25G	Tower Sections w/Bolts and Nuts	200
1	25AG4	Top Section w/Bolts and Nuts	31
1	SB25G	Short Base Section	10
1	HS25FO	Hinge Section w/Bolts and Nuts	56
1	BM25FOT	Boom Assembly w/Connections and Hardware	157
1	WHA2545FOT	Winch Assembly w/Hardware	26
1	ACLP25FOT	A-Clamp Assembly w/Hardware	4
45'	1/4GAC	1/4" Aircraft Cable	
1	1/2THH	1/2" Heavy Thimble	
2	1/4CCF	1/4" Cable Clamps	

Ground Installation - Must be Guyed or Bracketed at Hinge

Items listed below lines are those parts required to convert existing installation to a fold-over tower. Conversion kit can be ordered separately. See FOK part numbers. Guy kit not included.

*Items may be purchased separately.

Refer to alphabetical/numerical price list for current prices.

The price on all fold-over towers will be higher on shipments to the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

SHEET D-1953
(Replaces D-1764)

June 1, 1982

NO. 25 FOLD-OVER TOWERS

PART NUMBER		WT.
GGK25G1	Hinge Ground Guy Kit for all No. 25 Fold-Over Towers	51

Quantity	*Individual Part No.	
185'	3/16EHS	3/16" EHS Galvanized Guy Wire
24	3/16CCM	3/16" Cable Clamps, Malleable
8	1/4TH	1/4" Thimbles
4	1/2TBE&J	1/2" x 12" Galvanized Turnbuckles, E&J
4	GAS604	Screw Guy Anchors

For guying at hinge only.

PART NUMBER		WT.
GGK25G2	Double Ground Guy Kit for all No. 25 Fold-Over Towers	82

Quantity	*Individual Part No.	
500'	3/16EHS	3/16" EHS Galvanized Guy Wire
48	3/16CCM	3/16" Cable Clamps, Malleable
12	1/4TH	1/4" Thimbles
8	1/2TBE&J	1/2" x 12" Galvanized Turnbuckles, E&J
4	GAS604	Screw Guy Anchors

For guying at hinge and top.

Kit to Convert Existing 25G Tower to Fold-Over

PART NUMBER		WT.
FOK25	For 48', 58' or 68' No. 25 Fold-Over Tower. Standard straight tower sections or base section are not included. Items included are listed below line under Part No. FK2568.	250

Note: Existing tower must be disassembled prior to converting to fold-over tower.

Miscellaneous Items Available

PART NUMBER		WT.
*TB3	Heavy duty thrust bearing, recommended for 2" O.D. tubing	2-1/2
*TB4	Heavy duty thrust bearing, recommended for 3" O.D. tubing	3
*AS25G	Accessory shelf. Triangular plate with 2-1/4" hole to mount amateur rotor or mast bearing. Mounts inside tower section.	4
*AB	Amateur bearing - 2" x 4" x 10" hardwood for use with 25AG4 top section	1
*M200	Antenna mast galvanized, 10' long, 2" O.D., 16 gauge	14
*M200H	Antenna mast galvanized, 10' long, 2" O.D., 1/8" wall	26
*HB25AG	Adjustable house bracket (0 to 15")	8
*HB25BG	Adjustable house bracket (0 to 24")	11
*HB25CG	Adjustable house bracket (0 to 36")	17
*HBU	Universal house bracket (6" to 30")	15
*EB2525G	Eave bracket (universal)	7

If roof installation is required, please specify and appropriate items will be substituted at no charge.

All fold-over towers can be supplied with optional top section. See 25G tower sheets and specify on your order.

Fold-over towers must be guyed or bracketed at hinge. See complete guy charts, as well as fold-over tower specifications showing how your particular requirements should be guyed or bracketed.

*Items may be purchased separately.

Refer to alphabetical/numerical price list for current prices.

The price on all fold-over towers will be higher on shipments to the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

SHEET D-2054
(Replaces D-1954)

January 1, 1983

INSTALLATION INSTRUCTIONS FOR #25 FOLD-OVER TOWER

SITE SELECTION: Select a position sufficiently clear of trees, wires, buildings, etc., to permit a free swing of the hinged portion of the tower, antenna, and boom. The tower should be installed out of falling distance of power lines since every electrical and telephone wire should be considered dangerous. The only safe distance from power lines is at least twice the height of tower, mast, and antenna combined. The location should be suitable for placing four guy anchors at distances indicated on drawing.

GENERAL INSTALLATION: The tower should be installed by experienced and trained personnel. Anti-climb sections are recommended on all towers to prevent unauthorized persons from climbing tower. All antenna installations must be grounded per local or national codes.

BOLTS: Nuts and bolts are located in tower leg.

INSTALLATION OF BASE SECTION: Dig a hole 24" square by approximately 36" deep. Spread about 2" of gravel in the bottom of the hole prior to setting the short base section. Then set the base section on the gravel, being sure the correct end is up, and fill another 3" with gravel around the legs of the base. This allows the tower base legs to extend the required amount below the base of the concrete, thus allowing for drainage of moisture into the gravel. If the tower is near a building, set the base so that two of the tower legs lie in a plane perpendicular to the wall of the building. This will cause the hinge axis to also be at right angles to the wall and the tower will fold without interference from the building. With the base thus set, pour the concrete around it and check its plumb with a carpenter's level on one or more of the legs of the tower. Crown the top of the concrete slightly to hasten water runoff. (This paragraph does not apply to roof flat surface installations.)

ERECTION OF THE TOWER: After the concrete has hardened with the first section in place, continue with the second section. This is hastened if an erection fixture is used. (Erection fixture should be used to raise one 10' section at a time.) An additional 10' tower section can be added above the hinged section (see drawing) to bring the total height of the tower to 58' and a second 10' tower section can be added below the hinged section (see drawing) to bring the total height of the tower to 68'.

HINGED SECTION: With the shipping tab bolted closed, lift the hinged section into place, being sure to place the hinge on the correct side of the tower. Guy wires are then installed on the guying tabs near the hinge point (see drawing). The boom is then installed on the hinged section. Be sure hinge bolts are loosened before attempting to fold tower over.

If practical, a house bracket or eave bracket may be used at the hinge point in place of guy wires. The bracket must be placed within 2' of the hinge point.

INSTALLATION OF BOOM (LEVER) SECTION: First, leaving the hinge section bolted closed, hoist the boom into position and fasten it to the hinge section by means of the six 5/16" x 1" bolts as shown on the drawing. Next, secure the extreme top of the boom, using the "A" clamp with two 3/8" x 4" bolts and two U-bolts (see drawing). Do not tighten the U-bolts too tightly.

INSTALLATION OF FINAL SECTIONS: Erect the remaining sections in the usual manner. All bolts securing legs should be tightened enough to partially flatten the outer sleeve until it actually grips the leg within it.

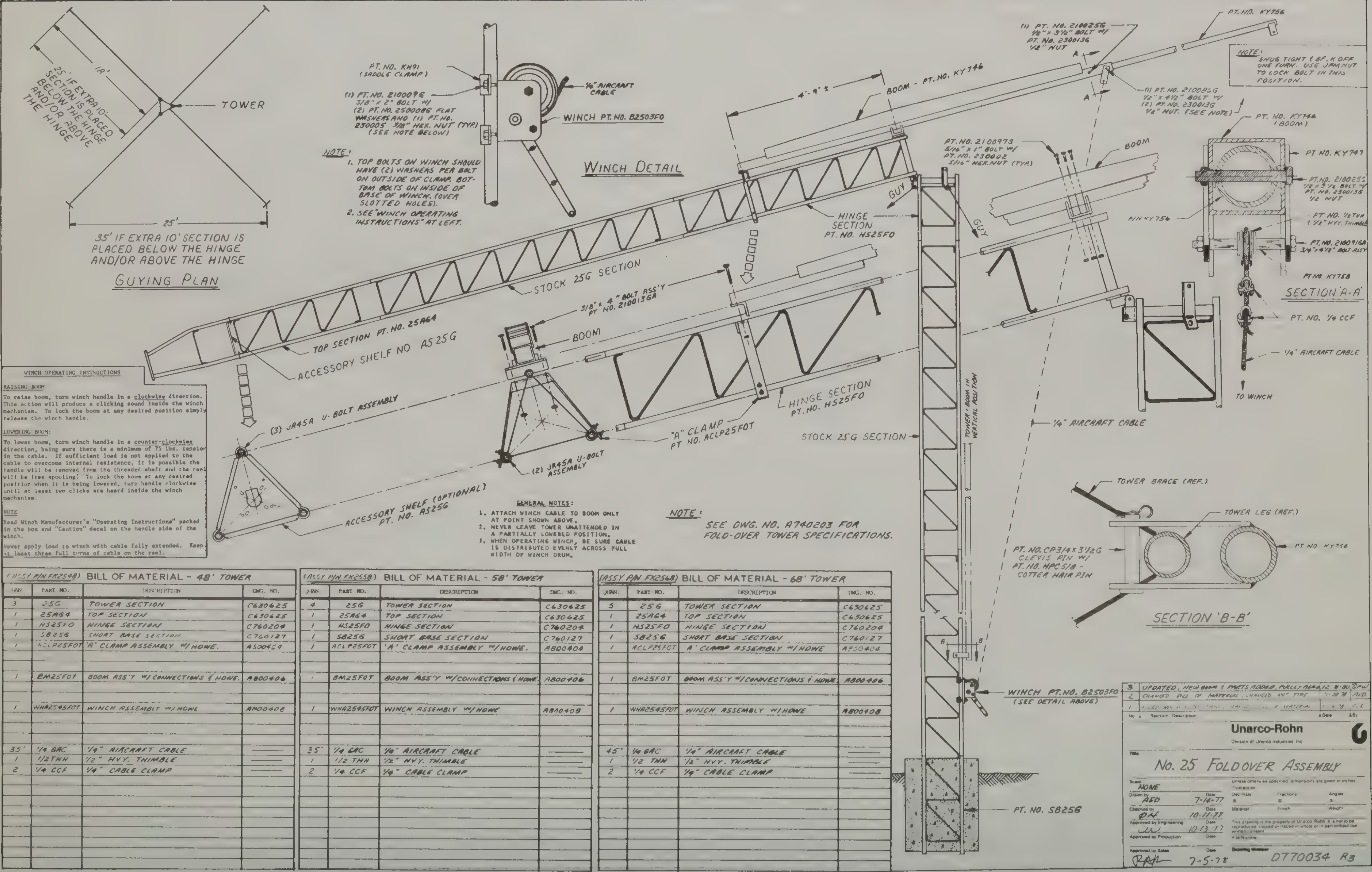
INSTALLATION OF WINCH AND CABLE MECHANISM: Bolt the winch and cable mechanism to the tower leg of the lower section of the tower, just below the clevis on the boom, with the four 3/8" x 2" bolts and two saddle clamps as shown on the drawing. Cable must be secured with two cable clamps and one wire rope thimble to the boom clevis.

WINCH OPERATING INSTRUCTIONS: To raise boom, turn winch handle in a clockwise direction. This action will produce a clicking sound inside the winch mechanism. To lock the boom at any desired position, simply release the winch handle. To lower boom, turn winch handle in a counter-clockwise direction, being sure there is a minimum of 75 lbs. tension in the cable. If sufficient load is not applied to the cable to overcome internal resistance, it is possible the handle will be removed from the threaded shaft and the reel will be free-spooling! To lock the boom at any desired position when it is being lowered, turn handle clockwise until at least two clicks are heard inside the winch mechanism. (Note: Read the winch manufacturer's "Operating Instructions" packed in box and "Caution" decal on handle side of winch. Never apply load to winch with the cable fully extended. Keep at least three full turns of cable on the reel.)

All types of antenna installations should be thoroughly inspected by qualified personnel at least twice a year and remarked with hazard and warning labels to insure safety and proper performance.

Dismantling of any tower should be done by professional and experienced installers a section at a time with the use of an erection fixture.

THE ABOVE INSTRUCTIONS ARE FACTORY TESTED. PLEASE FOLLOW CAREFULLY.


TOWER
18'
25'
25' IF EXTRA 10' SECTION IS PLACED BELOW THE HINGE AND/OR ABOVE THE HINGE
35' IF EXTRA 10' SECTION IS PLACED BELOW THE HINGE AND/OR ABOVE THE HINGE
GUYING PLAN
PT. NO. KH91 (SADDLE CLAMP)
(1) PT. NO. 210009G 3/8" x 2" BOLT W/ (2) PT. NO. 250008G FLAT WASHERS AND (1) PT. NO. 250005 3/8" HEX. NUT (TYP.) (SEE NOTE BELOW)
1/4" AIRCRAFT CABLE
WINCH PT. NO. B2503FO
WINCH DETAIL
4'-9"
BOOM - PT. NO. KY746
(1) PT. NO. 210025G 1/2" x 3 1/2" BOLT W/ PT. NO. 230013G 1/2" NUT
PT. NO. KY756
A
A
(1) PT. NO. 210086G 1/2" x 4 1/2" BOLT W/ (2) PT. NO. 230013G 1/2" NUT. (SEE NOTE)
NOTE: SNUG TIGHT & BACK OFF ONE TURN. USE JAM NUT TO LOCK BOLT IN THIS POSITION.
PT. NO. KY746 (BOOM)
PT NO. KY747
PT. NO. 210025G 1/2 x 3 1/2 BOLT W/ PT. NO. 230013G 1/2 NUT
P/N KY756
PT NO. 1/2 THH (1/2" HVY. THIMBLE)
PT. NO. 210091GA 3/4" x 4 1/2" BOLT ASSY
PT NO. KY758
SECTION 'A-A'
PT. NO. 1/4 CCF
1/4" AIRCRAFT CABLE
TO WINCH
PT. NO. 2100973 5/16" x 1" BOLT W/ PT. NO. 230002 5/16" HEX. NUT (TYP.)
BOOM
GUY
GUY
HINGE SECTION PT. NO. HS25FO
STOCK 25G SECTION
3/8" x 4" BOLT ASS'Y PT NO. 210013GA
BOOM
TOP SECTION PT. NO. 25AG4
ACCESSORY SHELF NO AS25G
(3) JR45A U-BOLT ASSEMBLY
(2) JR45A U-BOLT ASSEMBLY
"A" CLAMP PT NO. ACLP25FOT
HINGE SECTION PT. NO. HS25FO
STOCK 25G SECTION
ACCESSORY SHELF (OPTIONAL) PT. NO. AS25G
TOWER & BOOM IN VERTICAL POSITION
1/4" AIRCRAFT CABLE
TOWER BRACE (REF.)
TOWER LEG (REF.)
PT NO. KY756
PT. NO. CP3/4 X 3 1/2G CLEVIS PIN W/ PT. NO. HPC 5/8 - COTTER HAIR PIN
SECTION 'B-B'
B
B
WINCH PT. NO. B2503FO (SEE DETAIL ABOVE)
PT. NO. SB25G

NOTE:

1. TOP BOLTS ON WINCH SHOULD HAVE (2) WASHERS PER BOLT ON OUTSIDE OF CLAMP. BOTTOM BOLTS ON INSIDE OF BASE OF WINCH. (OVER SLOTTED HOLES).
2. SEE "WINCH OPERATING INSTRUCTIONS" AT LEFT.

GENERAL NOTES:

1. ATTACH WINCH CABLE TO BOOM ONLY AT POINT SHOWN ABOVE.
2. NEVER LEAVE TOWER UNATTENDED IN A PARTIALLY LOWERED POSITION.
3. WHEN OPERATING WINCH, BE SURE CABLE IS DISTRIBUTED EVENLY ACROSS FULL WIDTH OF WINCH DRUM.

NOTE: SEE DWG. NO. A740203 FOR FOLD-OVER TOWER SPECIFICATIONS.

WINCH OPERATING INSTRUCTIONS

RAISING BOOM

To raise boom, turn winch handle in a clockwise direction. This action will produce a clicking sound inside the winch mechanism. To lock the boom at any desired position simply release the winch handle.

LOWERING BOOM:

To lower boom, turn winch handle in a counter-clockwise direction, being sure there is a minimum of 75 lbs. tension in the cable. If sufficient load is not applied to the cable to overcome internal resistance, it is possible the handle will be removed from the threaded shaft and the reel will be free spooling! To lock the boom at any desired position when it is being lowered, turn handle clockwise until at least two clicks are heard inside the winch mechanism.

NOTE

Read Winch Manufacturer's "Operating Instructions" packed in the box and "Caution" decal on the handle side of the winch.

Never apply load to winch with cable fully extended. Keep at least three full turns of cable on the reel.

(ASSY P/N FK2548) BILL OF MATERIAL - 48' TOWER

QUAN.	PART NO.	DESCRIPTION	DWG. NO.
3	25G	TOWER SECTION	C630625
1	25AG4	TOP SECTION	C630625
1	HS25FO	HINGE SECTION	C760204
1	SB25G	SHORT BASE SECTION	C760127
1	ACLP25FOT	'A' CLAMP ASSEMBLY W/HOWE.	A800404
1	BM25FOT	BOOM ASS'Y W/CONNECTIONS & HOWE.	A800406
1	WHA2545FOT	WINCH ASSEMBLY W/HOWE	A800408
35'	1/4 GAC	1/4" AIRCRAFT CABLE	—
1	1/2THH	1/2" HVY. THIMBLE	—
2	1/4 CCF	1/4" CABLE CLAMP	—

(ASSY P/N FK2558) BILL OF MATERIAL - 58' TOWER

QUAN.	PART NO.	DESCRIPTION	DWG. NO.
4	25G	TOWER SECTION	C630625
1	25AG4	TOP SECTION	C630625
1	HS25FO	HINGE SECTION	C760204
1	SB25G	SHORT BASE SECTION	C760127
1	ACLP25FOT	'A' CLAMP ASSEMBLY W/HOWE.	A800404
1	BM25FOT	BOOM ASS'Y W/CONNECTIONS & HOWE.	A800406
1	WHA2545FOT	WINCH ASSEMBLY W/HOWE	A800408
35'	1/4 GAC	1/4" AIRCRAFT CABLE	—
1	1/2 THH	1/2" HVY. THIMBLE	—
2	1/4 CCF	1/4" CABLE CLAMP	—

(ASSY P/N FK2568) BILL OF MATERIAL - 68' TOWER

QUAN.	PART NO.	DESCRIPTION	DWG. NO.
5	25G	TOWER SECTION	C630625
1	25AG4	TOP SECTION	C630625
1	HS25FO	HINGE SECTION	C760204
1	SB25G	SHORT BASE SECTION	C760127
1	ACLP25FOT	'A' CLAMP ASSEMBLY W/HOWE	A800404
1	BM25FOT	BOOM ASS'Y W/CONNECTIONS & HOWE.	A800406
1	WHA2545FOT	WINCH ASSEMBLY W/HOWE	A800408
45'	1/4 GAC	1/4" AIRCRAFT CABLE	—
1	1/2 THH	1/2" HVY. THIMBLE	—
2	1/4 CCF	1/4" CABLE CLAMP	—

No.	Revision Description	Date	By
3	UPDATED, NEW BOOM & PARTS ADDED, PULLEY REF.	12-8-80	GPW
2	CHANGED BILL OF MATERIAL, CHANGED NUT TYPE	11-28-78	AED
1	[illegible] MATERIAL	[illegible] 78	[illegible]

Unarco-Rohn
Division of Unarco Industries Inc

Title: No. 25 FOLDOVER ASSEMBLY

Scale: NONE
Drawn by: AED Date: 7-14-77
Checked by: DH Date: 10-11-77
Approved by Engineering: Date: 10-13-77
Approved by Production: Date:
Approved by Sales: RAH Date: 7-5-78

Unless otherwise specified, dimensions are given in inches
Tolerances
Decimals ± Fractions ± Angles ±
Material Finish Weight

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File Number

Drawing Number: D770034 R3

SHEET D-2055
(Replaces D-1955)

January 1, 1983

NO. 45 FOLD-OVER TOWER

(Hot Dip Galvanized Finish After Fabrication)

PART NUMBER		WT.
FK4544	Complete 44' Tower - Hinge at 19'	565

Quantity	*Individual Part No.		
3	45G	Tower Sections w/Bolts and Nuts	210
1	45AG4	Top Section w/Bolts and Nuts	52
1	HS45FO	Hinge Section w/Bolts and Nuts	100
1	BM45FOT	Boom Assembly w/Connections and Hardware	165
1	WHA2545FOT	Winch Assembly w/Hardware	26
1	ACLP45FOT	A-Clamp Assembly w/Hardware	8
35'	1/4GAC	1/4" Aircraft Cable	
1	1/2THH	1/2" Heavy Thimble	
2	1/4CCF	1/4" Cable Clamps	

Ground Installation - Must be Guyed or Bracketed at Hinge

PART NUMBER		WT.
FK4554	Complete 54' Tower - Hinge at 19'	635

Quantity	*Individual Part No.		
4	45G	Tower Sections w/Bolts and Nuts	280
1	45AG4	Top Section w/Bolts and Nuts	52
1	HS45FO	Hinge Section w/Bolts and Nuts	100
1	BM45FOT	Boom Assembly w/Connections and Hardware	165
1	WHA2545FOT	Winch Assembly w/Hardware	26
1	ACLP45FOT	A-Clamp Assembly w/Hardware	8
35'	1/4GAC	1/4" Aircraft Cable	
1	1/2THH	1/2" Heavy Thimble	
2	1/4CCF	1/4" Cable Clamps	

Ground Installation - Must be Guyed or Bracketed at Hinge

PART NUMBER		WT.
FK4564	Complete 64' Tower - Hinge at 29'	705

Quantity	*Individual Part No.		
5	45G	Tower Sections w/Bolts and Nuts	350
1	45AG4	Top Section w/Bolts and Nuts	52
1	HS45FO	Hinge Section w/Bolts and Nuts	100
1	BM45FOT	Boom Assembly w/Connections and Hardware	165
1	WHA2545FOT	Winch Assembly w/Hardware	26
1	ACLP45FOT	A-Clamp Assembly w/Hardware	8
45'	1/4GAC	1/4" Aircraft Cable	
1	1/2THH	1/2" Heavy Thimble	
2	1/4CCF	1/4" Cable Clamps	

Ground Installation - Must be Guyed or Bracketed at Hinge

Items listed below lines are those parts required to convert existing installation to a fold-over tower. Conversion kit can be ordered separately. See FOK part numbers. Guy kit not included.

*Items may be purchased separately.

Refer to alphabetical/numerical price list for current prices.

The price on all fold-over towers will be higher on shipments to the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

NO. 45 FOLD-OVER TOWERS

PART NUMBER		WT.
GGK45G1	Hinge Ground Guy Kit for all No. 45 Fold-Over Towers	60

Quantity	*Individual Part No.	
185'	1/4EHS	1/4" EHS Galvanized Guy Wire
24	1/4CCM	1/4" Cable Clamps, Malleable
8	1/4TH	1/4" Thimbles
4	1/2TBE&J	1/2" x 12" Galvanized Turnbuckles, E&J
4	GAS604	Screw Guy Anchors

For guying at hinge only.

PART NUMBER		WT.
GGK45G2	Double Ground Guy Kit for all No. 45 Fold-Over Towers	108

Quantity	*Individual Part No.	
500'	1/4EHS	1/4" EHS Galvanized Guy Wire
48	1/4CCM	1/4" Cable Clamps, Malleable
12	1/4TH	1/4" Thimbles
8	1/2TBE&J	1/2" x 12" Galvanized Turnbuckles, E&J
4	GAS604	Screw Guy Anchors

For guying at hinge and top.

Kit to Convert Existing 45G Tower to Fold-Over

PART NUMBER		WT.
FOK45	For 44', 54' or 64' No. 45 Fold-Over Tower. Standard straight tower sections are not included. Items included are listed below line under Part No. FK4564.	305

Note: Existing tower must be disassembled prior to converting to fold-over tower.

Miscellaneous Items Available

PART NUMBER		WT.
*TB3	Heavy duty thrust bearing, recommended for 2" O.D. tubing	2-1/2
*TB4	Heavy duty thrust bearing, recommended for 3" O.D. tubing	3
*AS455G	Accessory shelf - triangular plate with 2-1/4" hole to mount amateur rotor or mast bearing. Mounts inside tower section.	4
*AB	Amateur bearing - 2" x 4" x 10" hardwood for use with 25AG4 top section	1
*M200	Antenna mast galvanized, 10' long, 2" O.D., 16 gauge	14
*M200H	Antenna mast galvanized, 10' long, 2" O.D., 1/8" wall	26
*HBU	Universal house bracket (6" to 30")	15

If roof installation is required, please specify and appropriate items will be substituted at no charge.

All fold-over towers can be supplied with optional top section. See 45G tower sheets and specify on your order.

Fold-over towers must be guyed or bracketed at hinge. See complete guy charts, as well as fold-over tower specifications showing how your particular requirements should be guyed or bracketed.

*Items may be purchased separately.

Refer to alphabetical/numerical price list for current prices.

The price on all fold-over towers will be higher on shipments to the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming.

SHEET D-2056
(Replaces D-1957)

January 1, 1983

INSTALLATION INSTRUCTIONS FOR #45 FOLD-OVER TOWER

SITE SELECTION: Select a position sufficiently clear of trees, wires, buildings, etc., to permit a free swing of the hinged portion of the tower, antenna, and boom. The tower should be installed out of falling distance of power lines since every electrical and telephone wire should be considered dangerous. The only safe distance from power lines is at least twice the height of tower, mast, and antenna combined. The location should be suitable for placing four guy anchors at distances indicated on drawing.

GENERAL INSTALLATION: The tower should be installed by experienced and trained personnel. Anti-climb sections are recommended on all towers to prevent unauthorized persons from climbing tower. All antenna installations must be grounded per local or national codes.

INSTALLATION OF BASE SECTION: Dig a hole 30" square by approximately 36" deep. Spread about 2" of gravel in the bottom of the hole prior to setting the first section. Then set the base section on the gravel, being sure the large sleeve end is down, and fill another 3" with gravel around the legs of the base. This allows the tower base legs to extend the required amount below the base of the concrete, thus allowing for drainage of moisture into the gravel. If the tower is near a building, set the base so that two of the tower legs lie in a plane perpendicular to the wall of the building. This will cause the hinge axis to also be at right angles to the wall and the tower will fold without interference from the building. With the base thus set, pour the concrete around it and check its plumb with a carpenter's level on one or more of the legs of the tower. Crown the top of the concrete slightly to hasten water runoff. (This paragraph does not apply to roof flat surface installations.)

ERECTION OF THE TOWER: After the concrete has hardened with the first section in place, continue with the second section. This is hastened if an erection fixture is used. (Erection fixture should be used to raise one 10' section at a time.) An additional 10' tower section can be added above the hinged section (see drawing) to bring the total height of the tower to 54' and a second 10' tower section can be added below the hinged section (see drawing) to bring the total height of the tower to 64'.

HINGED SECTION: With the shipping tab bolted closed, lift the hinged section into place, being sure to place the hinge on the correct side of the tower. Guy wires are then installed on the guying tabs near the hinge point (see drawing). The boom is then installed on the hinged section. Be sure hinge bolts are loosened before attempting to fold tower over.

If practical, a house bracket or eave bracket may be used at the hinge point in place of guy wires. The bracket must be placed within 2' of the hinge point.

INSTALLATION OF BOOM (LEVER) SECTION: First, leaving the hinge section bolted closed, hoist the boom into position and fasten it to the hinge section by means of the six 5/16" x 1" bolts as shown on the drawing. Next, secure the extreme top of the boom, using the "A" clamp with two 1/2" x 4-1/2" bolts and four U-bolts (see drawing). Do not tighten the U-bolts too tightly.

INSTALLATION OF FINAL SECTIONS: Erect the remaining sections in the usual manner. All bolts securing legs should be tightened enough to partially flatten the outer sleeve until it actually grips the leg within it.

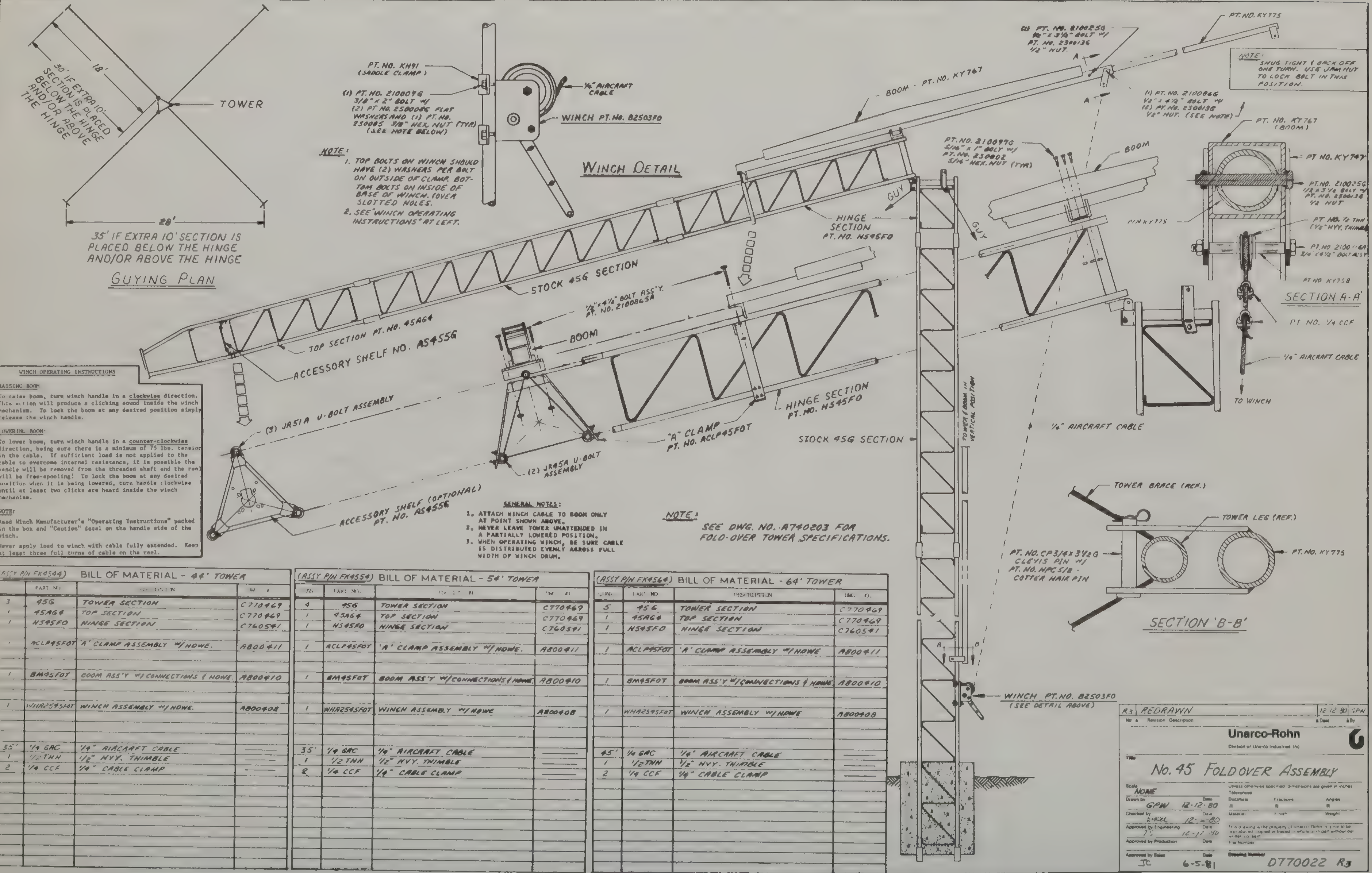
INSTALLATION OF WINCH AND CABLE MECHANISM: Bolt the winch and cable mechanism to the tower leg of the lower section of the tower, just below the clevis on the boom, with the four 3/8" x 2" bolts and two saddle clamps as shown on the drawing. Cable must be secured with two cable clamps and one wire rope thimble to the boom clevis.

WINCH OPERATING INSTRUCTIONS: To raise boom, turn winch handle in a clockwise direction. This action will produce a clicking sound inside the winch mechanism. To lock the boom at any desired position, simply release the winch handle. To lower boom, turn winch handle in a counter-clockwise direction, being sure there is a minimum of 300 lbs. tension in the cable. If sufficient load is not applied to the cable to overcome internal resistance, it is possible the handle will be removed from the threaded shaft and the reel will be free-spooling! To lock the boom at any desired position when it is being lowered, turn handle clockwise until at least two clicks are heard inside the winch mechanism. (Note: Read the winch manufacturer's "Operating Instructions" packed in box and "Caution" decal on handle side of winch. Never apply load to winch with the cable fully extended. Keep at least three full turns of cable on the reel.)

All types of antenna installations should be thoroughly inspected by qualified personnel at least twice a year and remarked with hazard and warning labels to insure safety and proper performance.

Dismantling of any tower should be done by professional and experienced installers a section at a time with the use of an erection fixture.

THE ABOVE INSTRUCTIONS ARE FACTORY TESTED. PLEASE FOLLOW CAREFULLY.


30' IF EXTRA 10' SECTION IS PLACED BELOW THE HINGE AND/OR ABOVE THE HINGE
18'
TOWER
28'
35' IF EXTRA 10' SECTION IS PLACED BELOW THE HINGE AND/OR ABOVE THE HINGE
GUYING PLAN
PT. NO. KH91 (SADDLE CLAMP)
(1) PT. NO. 2100076 3/8" x 2" BOLT W/ (2) PT NO. 2500086 FLAT WASHERS AND (1) PT. NO. 230085 3/8" HEX. NUT (TYP.) (SEE NOTE BELOW)
1/4" AIRCRAFT CABLE
WINCH PT. NO. B2503FO
WINCH DETAIL
BOOM - PT. NO. KY767
(2) PT. NO. 2100256 1/2" x 3 1/2" BOLT W/ PT. NO. 2300136 1/2" NUT.
A
A
PT. NO. KY775
(1) PT. NO. 2100866 1/2" x 4 1/2" BOLT W/ (2) PT. NO. 2300136 1/2" NUT. (SEE NOTE)
PT. NO. KY767 (BOOM)
PT NO. KY747
PT. NO. 2100256 1/2 x 3 1/2 BOLT W/ PT. NO. 2300136 1/2 NUT
PIN KY775
PT NO. 1/2 THN (1/2" HVY. THIMBLE)
PT. NO 2100..6A 3/4 x 4 1/2" BOLT ASSY
PT NO. KY758
SECTION A-A'
PT NO. 1/4 CCF
1/4" AIRCRAFT CABLE
TO WINCH
PT. NO. 2100976 5/16" x 1" BOLT W/ PT. NO. 230002 5/16" HEX. NUT (TYP.)
BOOM
GUY
GUY
HINGE SECTION PT. NO. HS45FO
STOCK 45G SECTION
TOP SECTION PT. NO. 45A64
ACCESSORY SHELF NO. AS455G
1/2" x 4 1/2" BOLT ASS'Y. PT. NO. 2100865A
BOOM
(3) JR51A U-BOLT ASSEMBLY
"A" CLAMP PT. NO. ACLP45FOT
HINGE SECTION PT. NO. HS45FO
(2) JR45A U-BOLT ASSEMBLY
ACCESSORY SHELF (OPTIONAL) PT. NO. AS455G
STOCK 45G SECTION
TOWER & BOOM IN VERTICAL POSITION
1/4" AIRCRAFT CABLE
TOWER BRACE (REF.)
TOWER LEG (REF.)
PT. NO. CP3/4 x 3 1/2 G CLEVIS PIN W/ PT. NO. HPC 5/8 - COTTER HAIR PIN
PT. NO. KY775
SECTION 'B-B'
B
B
WINCH PT. NO. B2503FO (SEE DETAIL ABOVE)

NOTE:
1. TOP BOLTS ON WINCH SHOULD HAVE (2) WASHERS PER BOLT ON OUTSIDE OF CLAMP. BOTTOM BOLTS ON INSIDE OF BASE OF WINCH. COVER SLOTTED HOLES.
2. SEE "WINCH OPERATING INSTRUCTIONS" AT LEFT.

NOTE:
SNUG TIGHT & BACK OFF ONE TURN. USE JAM NUT TO LOCK BOLT IN THIS POSITION.

WINCH OPERATING INSTRUCTIONS

RAISING BOOM

To raise boom, turn winch handle in a clockwise direction. This action will produce a clicking sound inside the winch mechanism. To lock the boom at any desired position simply release the winch handle.

LOWERING BOOM:

To lower boom, turn winch handle in a counter-clockwise direction, being sure there is a minimum of 75 lbs. tension in the cable. If sufficient load is not applied to the cable to overcome internal resistance, it is possible the handle will be removed from the threaded shaft and the reel will be free-spooling! To lock the boom at any desired position when it is being lowered, turn handle clockwise until at least two clicks are heard inside the winch mechanism.

NOTE:

Read Winch Manufacturer's "Operating Instructions" packed in the box and "Caution" decal on the handle side of the winch.

Never apply load to winch with cable fully extended. Keep at least three full turns of cable on the reel.

GENERAL NOTES:
1. ATTACH WINCH CABLE TO BOOM ONLY AT POINT SHOWN ABOVE.
2. NEVER LEAVE TOWER UNATTENDED IN A PARTIALLY LOWERED POSITION.
3. WHEN OPERATING WINCH, BE SURE CABLE IS DISTRIBUTED EVENLY ACROSS FULL WIDTH OF WINCH DRUM.

NOTE:
SEE DWG. NO. A740203 FOR FOLD-OVER TOWER SPECIFICATIONS.

(ASSY P/N FK4544) BILL OF MATERIAL - 44' TOWER

QUAN.	PART NO.	DESCRIPTION	DWG. NO.
3	45G	TOWER SECTION	C770469
1	45A64	TOP SECTION	C770469
1	HS45FO	HINGE SECTION	C760541
1	ACLP45FOT	'A' CLAMP ASSEMBLY W/ HDWE.	A800411
1	BM45FOT	BOOM ASS'Y W/ CONNECTIONS & HDWE.	A800410
1	WHA2545FOT	WINCH ASSEMBLY W/ HDWE.	A800408
35'	1/4 GAC	1/4" AIRCRAFT CABLE	———
1	1/2 THN	1/2" HVY. THIMBLE	———
2	1/4 CCF	1/4" CABLE CLAMP	———

(ASSY P/N FK4554) BILL OF MATERIAL - 54' TOWER

QUAN.	PART NO.	DESCRIPTION	DWG. NO.
4	45G	TOWER SECTION	C770469
1	45A64	TOP SECTION	C770469
1	HS45FO	HINGE SECTION	C760541
1	ACLP45FOT	'A' CLAMP ASSEMBLY W/ HDWE.	A800411
1	BM45FOT	BOOM ASS'Y W/CONNECTIONS & HDWE.	A800410
1	WHA2545FOT	WINCH ASSEMBLY W/ HDWE	A800408
35'	1/4 GAC	1/4" AIRCRAFT CABLE	———
1	1/2 THN	1/2" HVY. THIMBLE	———
2	1/4 CCF	1/4" CABLE CLAMP	———

(ASSY P/N FK4564) BILL OF MATERIAL - 64' TOWER

QUAN.	PART NO.	DESCRIPTION	DWG. NO.
5	45G	TOWER SECTION	C770469
1	45A64	TOP SECTION	C770469
1	HS45FO	HINGE SECTION	C760541
1	ACLP45FOT	'A' CLAMP ASSEMBLY W/ HDWE	A800411
1	BM45FOT	BOOM ASS'Y W/CONNECTIONS & HDWE	A800410
1	WHA2545FOT	WINCH ASSEMBLY W/ HDWE	A800408
45'	1/4 GAC	1/4" AIRCRAFT CABLE	———
1	1/2 THN	1/2" HVY. THIMBLE	———
2	1/4 CCF	1/4" CABLE CLAMP	———

No. Δ	Revision Description	Δ Date	Δ By
R3	REDRAWN	12 12 80	GPW

Unarco-Rohn
Division of Unarco Industries Inc

Title
No. 45 FOLDOVER ASSEMBLY

Scale: NONE
Drawn by: GPW Date: 12·12·80
Checked by: KHOL Date: 12-..-80
Approved by Engineering: TS Date: 12-17-80
Approved by Production: Date:
Approved by Sales: JC Date: 6-5-81

Unless otherwise specified dimensions are given in inches
Tolerances
Decimals ± Fractions ± Angles ±
Material Finish Weight

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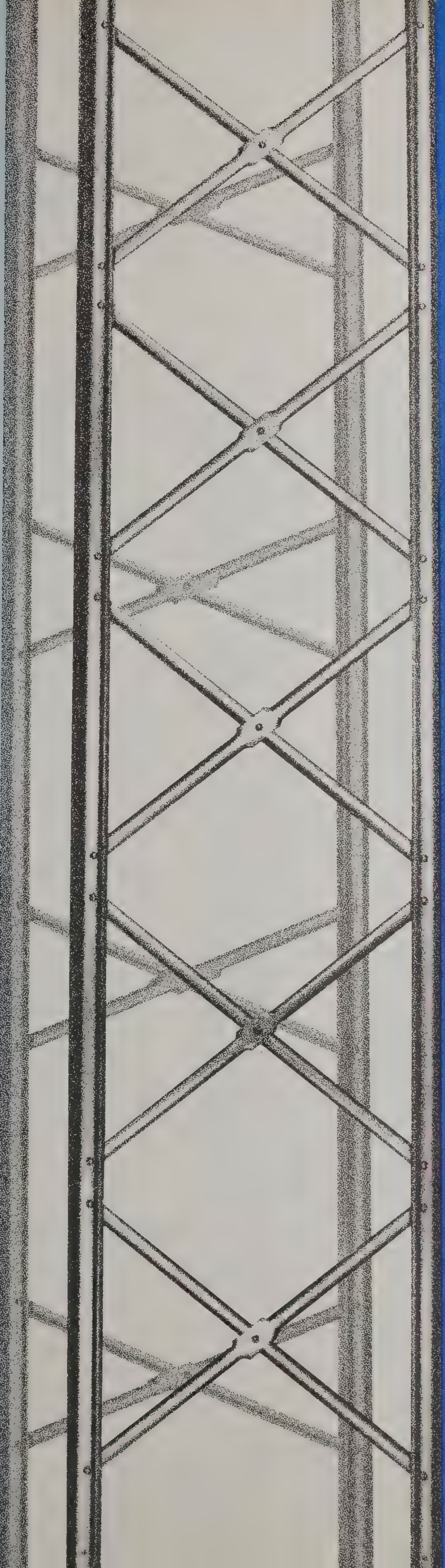
File Number

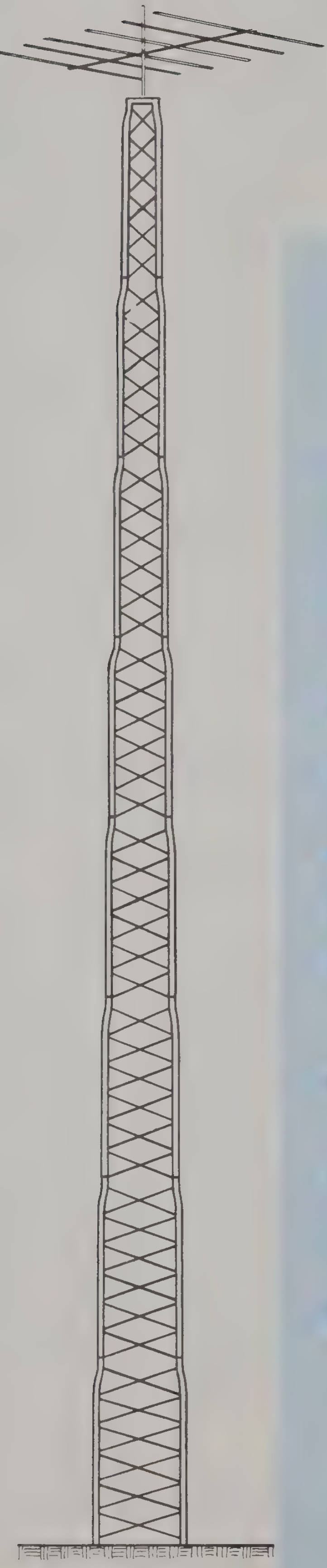
Drawing Number
D770022 R3



For Home TV
Ham Radio
and CB

ROHN
"BX" Towers

Rohn



STANDARD

BX

Most Basic Tower Needs

- Up to 6 sq. ft. antenna capacity (see specifications)
- Available to 64′ in 8′ sections
- "X" Brace design gives greater strength — braces riveted in center as well as at ends
- Greater width and weight at bottom — for greater strength
- Beaded channel leg for added strength
- All riveted construction — no welds
- All steel — galvanized for added life
- Can be used with Concrete Base Stubs, Cylinder Base or Hinged Concrete Base (see tower accessories chart)
- Tower can be assembled on the ground and hinged up or built vertically, section upon section
- Rotators easily installed
- Physical properties and specifications available
- Compact Nested 48′ Tower Package — takes only 2 sq. ft. floor space

HEAVY DUTY

HBX

For Heavier Capacity

- Has same structural features as BX
- Up to 10 sq. ft. antenna capacity (see specifications)
- Available to 56′ in 8′ sections
- This tower will hold larger antennas and rotators than standard BX tower. Top of HBX tower is a 10-3/16″ triangle
- Rotators easily installed
- Can be used with Concrete Base Stubs or Hinged Concrete Base (see tower accessories chart)
- Tower can be assembled on the ground and hinged up or built vertically, section upon section
- Physical properties and specifications available
- Compact Nested 56′ Tower Package — takes only 2-1/2 sq. ft. floor space

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BX TOWERS

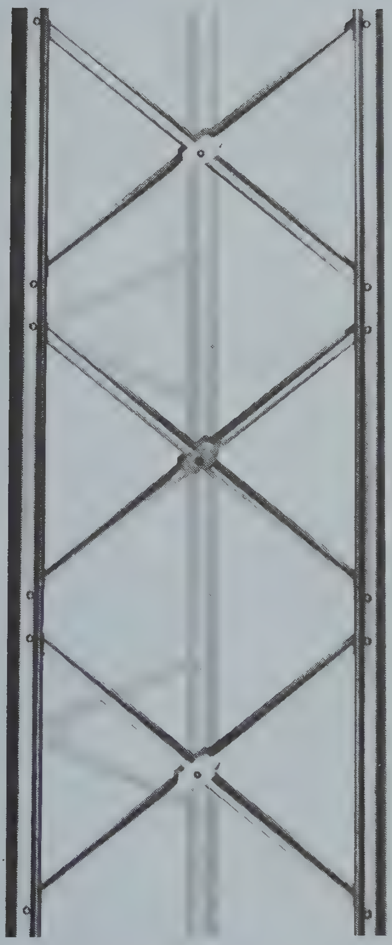
For TV, Ham, CB Installations

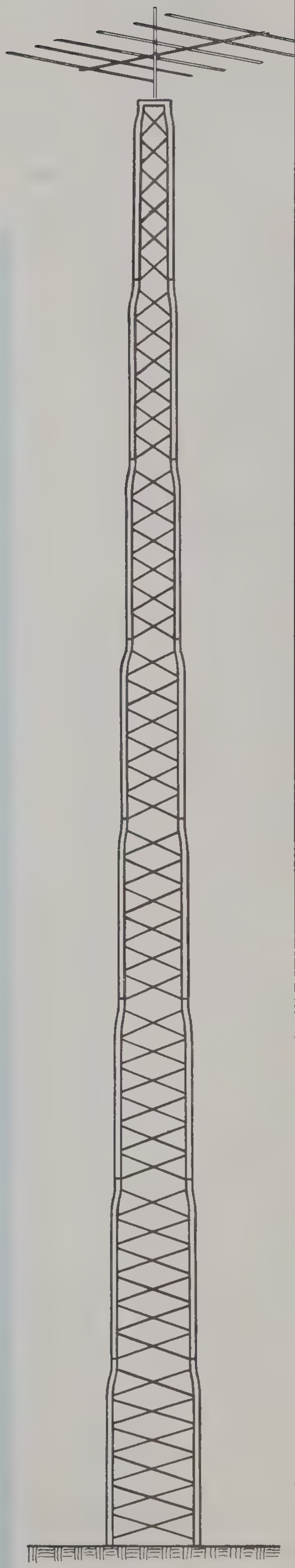
EXTRA HEAVY DUTY

HDBX

Our Heaviest BX Tower

- Has same structural feature as BX
- Up to 18 sq. ft. antenna capacity (see specifications)
- Available to 48′ in 8′ sections
- Due to design structure this tower will withstand greater loading than other models. Top of HBDX tower is a 12-3/4″ triangle
- Rotators easily installed
- Can be used with Concrete Base Stubs or Hinged Concrete Base (see tower accessories chart)
- Tower can be assembled on the ground and hinged up or built vertically, section upon section
- Physical properties and specifications available
- Compact Nested 48′ Tower Package — takes only 2-1/2 sq. ft. floor space

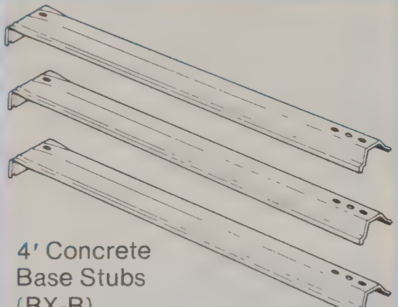


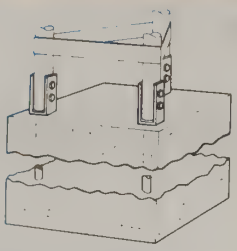


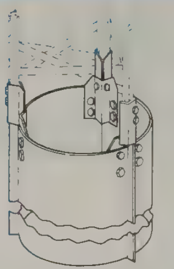
Towers As Packed For Shipping

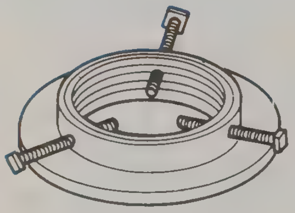
BX, HBX, HDBX are shipped with: mast hardware kit (BX-MK2 or XT-2 and XR-2 for HBX, XT-3 and XR-3 for HDBX), A mast clamp (FL), 8' mast M-8).
BASE MUST BE ORDERED SEPARATELY. Bases (BX-B, BX-HC and BX-CA) are illustrated on back page.

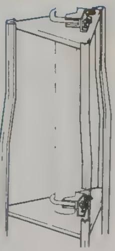
Tower Accessories

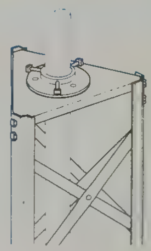

4′ Concrete
Base Stubs
(BX-B)


Hinged Concrete Base
(BX-HC)


* 4′ Cylinder Base
(BX-CA)


Heavy Duty Mast Clamp
(FL)


Mast Hardware Kit
(BX-MK2)


Top Plate Assembly (XT)
Heavy Duty Mast Clamp (FL)

Tower "Package" — compact shipping and storage method. Includes all necessary parts and hardware.

All towers are recommended to be bracketed for extra safety and to withstand gusty wind conditions.

Note: Local building and/or zoning laws frequently require a building permit. Available BX Engineering Data should be submitted for approval prior to purchasing a tower.

Do not install towers and masts near power lines. All towers or masts should be installed twice the height of the installation away from power lines since every electrical wire must be considered dangerous.

ROHN recommends anti-climb sections on all towers to prevent unauthorized persons from climbing towers.

All towers and masts should be installed and dismantled by experienced and trained personnel.
All types of antenna installations should be thoroughly inspected by qualified personnel and remarked with hazard and warning labels at least twice a year to insure safety and proper performance.

All antenna installations must be grounded per local and national codes.

The mixing of so-called interchangeable copies of ROHN products is dangerous and voids all engineering or warranty data supplied by ROHN. Materials used by the so-called copies are not the same quality and have not been tested or engineered by ROHN to conform to the same quality standards. Mixing of non-ROHN items may endanger the lives of your customers and cause serious tower failures and financial misfortune for all concerned.

* **Not Recommended**
Convenience Item Only

ROHN®

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TWX 910-652-0646

Form No. 76660 -**R2-83**
Printed in U.S.A.

SHEET D-1333
(Replaces D-1257)

November 1, 1977

BX TOWER

PART NUMBER		WT.
8' BX Sections		
BX1A	Offset top section w/BXT1, BXR1, BXMK2	26
BXS1	Straight section	26
BX2	Standard offset section	23
BX2A	Offset top section w/BXT2, BXR2	26
BXS2	Straight section	24
BX3	Standard offset section	28
BX3A	Offset top section w/BXT3, BXR3	32
*BXS3	Straight section	29
BX4	Standard offset section	41
*BXS4	Straight section	42
BX5	Standard offset section	59
*BXS5	Straight section	60
BX6	Standard offset section	64
*BXS6	Straight section	65
BX7	Standard offset section	75
*BXS7	Straight section	77
BX8	Standard offset section	82
*BXS8	Straight section	84

Nuts and bolts included in section prices.

BX Accessories

BXMK2	Mast hardware kit w/rotor post for top and rotor plate	2
FL	Heavy duty mast clamp	3½
EFBX	12' aluminum erection fixture for all BX sections	22
HBX	Head only for EFBX	12
P2545	Pole only for EFBX (or EF2545)	10
BXSM	Side mount (28" - 40") w/4', 1¼" OD mast (fits sections 1 thru 6 - recommend tower be guyed when using this mount)	16
WPBX	Work platform	14
BXSK1	Extra step kit for section 1	1
BXSK2	Extra step kit for section 2	1
BXSK3	Extra step kit for section 3	1

Top and Rotor Plates

BXT1	Top plate for section BX1	1
BXT2	Top plate for section BX2	1½
BXT3	Top plate for section BX3	2
BXR1	Rotor plate for section 1	1
BXR2	Rotor plate for section 2	2
BXR3	Rotor plate for section 3	2

Masts

M8	8' mast (1¼")	6½
M4	4' mast (1¼")	3

NOTE: When adding BXS1 or BXS2 sections to any BX tower, tower must be guyed. See #25 guy chart.

*Discontinued

F.O.B. FRANKFORT, INDIANA

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

SHEET D-1540
(Replaces D-1507)

May 1, 1979

PART NUMBER	WT.
Self-Supporting Standard BX Tower with (M8) 8' mast	
BX24	84
BX32	125
BX40	184
BX48	248
BX56	323
BX64	405

PART NUMBER	WT.
Self-Supporting Heavy Duty BX Tower w/ (FL) mast clamp	
HBX24	105
HBX32	164
HBX40	228
HBX48	303
HBX56	385

PART NUMBER	WT.
Self-Supporting Extra H.D. BX Tower w/ (FL) mast clamp	
HDBX24	142
HDBX32	206
HDBX40	281
HDBX48	363

Note: Concrete base stubs not included on above towers. Order all bases as a separate item.

PART NUMBER		WT.
4' Concrete Base Stubs (Set of 3) (Tower height not to exceed 64 ft.)		
BXB3	Stubs for section 3	14
BXB4	Stubs for section 4	17
BXB5	Stubs for section 5	18
BXB6	Stubs for section 6	22
BXB7	Stubs for section 7	25
BXB8	Stubs for section 8	27
Self-Supporting 4' Cylinder Base (For use without concrete with mounting hardware) (Tower height not to exceed 48 ft.)		
BXCA3	For use with section 3	75
BXCA4	For use with section 4	85
BXCA5	For use with section 5	95
BXCA6	For use with section 6	106
BXCHK	Cylinder base hardware kit (fits sections 3, 4, 5, & 6)	16

Note: Cylinder base not intended for use in loose soil (sand). Rohn does not recommend the use of cylinder bases. Cylinder bases are supplied as a convenience item only.

PART NUMBER		WT.
Self-Supporting Hinged Concrete Base for All Sections (Tower height not to exceed 64 ft.)		
BXHC36	Fits sections 3 through 6	25
BXHC78	Fits sections 7 and 8	48
EX Series Bracketed Home TV BX Tower with Drive Rods, Base Plate, 8' Mast, and House Bracket		
EX2	16' tower	76
EX3	24' tower	99
EX4	32' tower	124
EX5	40' tower	148
EX Accessories		
EXR1	Universal roof mount	2
EXB1	Base plate	2
EXDR1	3' drive rods (set of 3)	8
M8	8' mast ($1\frac{1}{4}$")	$6\frac{1}{2}$
EXH1	Adjustable house bracket - 4" to 18" (fits sections 1, 2, 3, 4, 5, & 6)	6
EXH2	Adjustable house bracket - 8" to 24" (fits sections 1, 2, 3, 4, 5, & 6)	7

Refer to alphabetical/numerical price list for current prices.

F.O.B. FRANKFORT, INDIANA

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

"WARNING: INSTALLATION OR DISMANTLING OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS. FOR YOUR SAFETY, FOLLOW THE CATALOG DIRECTIONS."

INSTALLATION AND DISMANTLING INSTRUCTIONS -- YOU, YOUR ANTENNA, AND SAFETY

Each year hundreds of people are killed, mutilated, or receive severe permanent injuries when attempting to install or dismantle an antenna. In many of these cases, the victim was aware of the dangers of electrocution and failure but did not take adequate steps to avoid the hazard.

For your safety and to help you achieve a good installation, please READ and FOLLOW the safety precautions below. THEY MAY SAVE YOUR LIFE!

1. If you are installing or dismantling an antenna for the first time, please, for your own safety as well as others, seek PROFESSIONAL ASSISTANCE. Consult your dealer. He can explain which mounting or dismantling method to use for the size and type antenna you are about to install or dismantle.

2. Select your installation site with safety, as well as performance, in mind. (See information on Site Selection.) REMEMBER: POWER LINES AND PHONE LINES LOOK ALIKE. FOR YOUR SAFETY, ASSUME THAT ANY OVERHEAD LINES CAN KILL YOU.

3. Call your power company. Tell them your plans and ask them to look at your site. This is little inconvenience, considering YOUR LIFE IS AT STAKE.

4. Before you begin, plan your installation or dismantling procedure carefully. Successful installation or dismantling of a mast or tower is largely a matter of coordination. Each person should be assigned to a specific task and should know what to do and when to do it. One person should be designated as the "boss" to call out instructions and watch for signs of trouble.

5. When installing or dismantling your antenna, REMEMBER: DO NOT use a metal ladder. DO NOT work on a wet or windy day or if a thunderstorm is approaching. DO dress properly -- shoes with rubber soles and heels, rubber gloves, long sleeve shirt or jacket.

6. If the assembly starts to drop, get away from it and let it fall. REMEMBER: The antenna, mast, cable, and metal guy wires are all excellent conductors of electrical current. Even the slightest touch of any of these parts to a power line completes an electrical path through the antenna and the installer -- THAT'S YOU!

7. If any part of the antenna system should contact a power line -- DON'T TOUCH IT OR TRY TO REMOVE IT YOURSELF. CALL YOUR LOCAL POWER COMPANY. They will remove it safely.

8. If an electrical accident should occur -- DON'T grab hold of the person in contact with the power line or you too will be electrocuted. Use a DRY board, stick or rope to push or pull the victim away from the antenna. If the victim has stopped breathing, administer artificial respiration -- and stay with it. Have someone call for medical help.

SITE SELECTION: Before attempting to install your antenna, think where you can best place your antenna for safety and performance. To determine a safe distance from wires, power lines, and trees: 1) Measure the height of your antenna; 2) Add this length to the length of your tower or mast; and then, 3) Double this total for the minimum recommended safe distance.

If you are unable to maintain this safe distance, STOP! GET PROFESSIONAL HELP. Generally, the higher the antenna is aboveground, the better it performs. Good practice is to install your antenna above the roof line and away from power lines and obstructions. Remember that the FCC limits your CB antenna height. If possible, find a mounting place close to your set, where the antenna wire can take a short, vertical drop on the outside of the house for entry through a wall or window near the set. Your dealer carries a complete line of installation hardware.

SHEET D-2159
(Replaces D-1765)

December 1, 1983

ROHN

MAST ASSEMBLY
BX - STANDARD // HBX - HEAVY DUTY // HDBX - EXTRA HEAVY DUTY TOWERS

1. Two U-bolt assemblies with "L" brackets are supplied for installing the mast. These "L" brackets are bolted through the slotted holes on the rotor and top plate with the short legs of the "L" bracket toward the outside of the tower.
   See Drawing C-750429.
2. Run the U-bolt through the open side of the formed "V" clamp and into the "L" bracket placing the 5/16" nuts and washers on the U-bolt loosely.
3. To install the mast, place one end of it through the upper U-bolt assembly end plate and slide it down into the lower U-bolt assembly. Then tighten the U-bolt assembly to hold the mast.
4. Adjustments to make the mast vertical may be made by moving the "L" brackets in the slotted holes.

The HBX - Heavy Duty and HDBX - Extra Heavy Duty Towers are furnished with a mast clamp installed on the top plate made from a pipe floor flange, which is provided with three bolts to be used as set screws to secure the mast. The box of hardware consists of one U-bolt assembly as described above and it can be installed on the lower plate as is instructed above, if required.

ASSEMBLY INSTRUCTIONS

BREAKING DOWN BUNDLE

1. If your tower includes the 8' mast and/or three 4' base stubs, remove them. Remove the package of nuts, bolts, and washers.
2. Lay the bundle on its side and remove the tower sections. Start with the innermost section of the package (the smallest section) and remove by pulling out with quick, firm jerks. It is not necessary nor desirable to pry the tower sections out with tools as damage may result.
3. Inspect all tower sections on delivery to make sure there are no loose or broken rivets caused by transport mishandling. If a rivet is broken or loose, it should be replaced by a snug-fitting machine bolt and nut, securely tightened.

TOWER

After you have chosen the desired type of base for your tower (concrete base with BXB concrete base stubs, BXHC hinged concrete base, or BXCA cylinder base which hinges over and requires no concrete) and it is properly installed per base instructions, bolt the base section (the largest section) to the base. Proceed with the erection as follows:

1. The legs on each higher section slide inside the previous one and should be positioned on the rivet stop in the previous leg. (This rivet stop is to prevent the tower section being installed from slipping through the previous section and is not for the purpose of aligning the assembly holes.) (Special Note: The BX8 section does not have a rivet stop in it, so extreme caution should be used when installing the BX7 section into the BX8 section.) Proceed by bolting together each section with the proper size bolts.
2. To erect the tower, section by section vertically, you should use an EFBX erection fixture for raising and locating the section being installed into the previous section. (Note: Do not use an erection fixture to lift more than the weight of one tower section at a time.) By using BXHC or BXCA base the tower can be assembled on the ground and hinged up using extreme caution. When hinging up, watch for power lines, trees, etc.
3. Loose, missing or faulty rivets should be replaced with a similar size nut and bolt which can be obtained at any local hardware store.

NOTE: 3/8" bolts are to be used on BX1, BX2 and the top of BX3 sections. 9/16" bolts are used on the bottom of the BX3 and all sections from BX4 through BX8 (BX8 is the largest section).

One set of cross braces on one face of the top section is purposely left off to allow easy access to the rotor plate for installing the mast and rotor. (Note: Only one person should be on the tower at one time.)

CAUTION ... Be sure hinge bolts on hinged type accessories are loosened before attempting to hinge tower over. All hinged type bases are recommended to be used to raise tower only without antenna. When raising and lowering tower on any hinged type base, the loads applied for hinging the tower must be applied equally on both sides of the tower in order to reduce the possibility of twist on tower and hinges at the base. Special care must be taken to avoid the use of raising and lowering methods which may cause damage to tower or hinges. Hinged bases should only be installed and dismantled by professional and experienced installers.

SHEET D-2160
(Replaces D-1766)

December 1, 1983

NOTES ON INSTALLING ROTATORS

Most all makes of rotators can be installed on the rotor plate inside the top tower section of the BX standard towers. There is a short piece of tubing furnished with each tower that can be used as a thrust bearing (for 1-1/4" mast) with the mast clamp installed on the top plate as is described under the heading of Mast Assembly. Do not install rotators on the HDBX top plate.

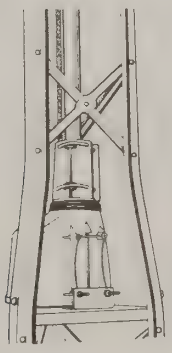
For the HBX - Heavy Duty and HDBX - Extra Heavy Duty Towers, when a rotator is used a 4" piece of tubing or pipe with an I.D. larger than the O.D. of the mast can be installed in the pipe flange clamp and used as a bearing sleeve for the mast to turn in.

FOR INSTALLING THE ROTATOR ITSELF, FOLLOW THE PROCEDURES OUTLINED BELOW:

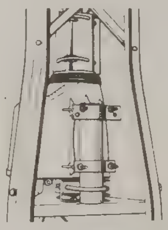
Some inline model rotators mount directly to the rotor plate. (The lower housing of the rotator is not used when this is done.) The necessary holes for mounting most rotors are pre-punched in the plate itself and the bolts furnished to bolt the lower housing to the upper housing (4-1/4" x 1" bolts) are to be inserted from the bottom of the plate upward and into the rotor. It is desirable to place 3/8" nuts to act as spacers between the rotor plate and the rotator.

These nuts will prevent the terminals of the rotator and the rotor wire from shorting on the rotor plate. An 8" piece of tubing is furnished with each tower. It can be installed into the clamp ("V" clamp and "L" shaped brackets furnished for offset rotor installation only) for the offset type rotors. It is necessary to reverse the clamp assembly (to face outside of the tower), opposite that of installing a standard mast to the rotor plate. Some rotators can be mounted directly to the "L" shaped bracket as shown or to the 8' mast as previously described.

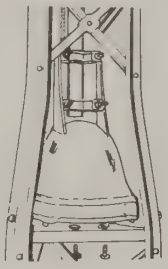
Also, some rotators mount beneath the rotor plate (as pictured). It will be necessary to increase the 1/4" holes in the rotor plate to 3/8" holes to use the 3/8" bolts furnished with these rotators. See pictorial views of typical rotor installations:



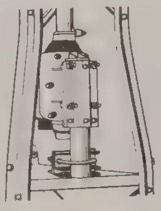
CROWN ROTOR



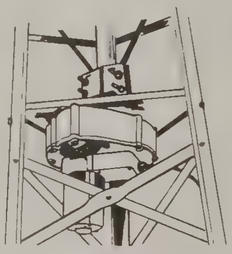
CROWN ROTOR



CDR "BELL" ROTOR



ALLIANCE ROTOR



HY-GAIN 400 ROTOR

In all cases be careful during installation.

****

NOTES .....

Do not install towers near power lines. All towers should be installed out of falling distance of power lines since every electrical and telephone wire should be considered dangerous.

Rohn recommends anti-climb sections on all towers to prevent unauthorized persons from climbing towers. Only one person should be on the tower at a time.

All antenna installations must be grouned per local or national codes.

All towers should be installed and dismantled by experienced and trained personnel.

All types of antenna installations should be thoroughly inspected by qualified personnel at least twice a year and remarked with hazard and warning labels to insure safety and proper performance.

SHEET D-2158
(Replaces D-1513)

December 1, 1983

ROHN

INSTALLATION INSTRUCTIONS

BX SELF-SUPPORTING CYLINDER BASES

1. Assemble the base as shown on Drawing C750409.
2. Place the cylinder in the area the tower is to occupy. (Note: Be sure to position the base so that the tower can be hinged in the direction where there are no obstructions.) Mark off a circle approximately 2 to 3 inches larger than the cylinder.
3. Dig a hole 4 feet deep (deep enough to completely bury the cylinder below ground level).
4. Drop the cylinder in the hole and with it as vertical as possible throw the soil back into the cylinder and around it, tamping it solid after every 6 to 8 inches of fill. (Note: Be sure cylinder is flush or below the ground surface. See Drawing C750409.)
5. When the cylinder is approximately one-half full of dirt, attach the base tower section to the pipe sleeves of the base as shown on Drawing C750409. This is necessary to avoid distortion of the cylinder as you continue to fill and tamp the soil in the base.
6. Continue to fill and tamp the soil into the cylinder to within 6 inches of the top.
7. Plumb the tower section by placing a level on the outside of each leg adjusting to the plumb position by loosening and re-aligning the BXCB1 angle support brackets until the tower is plumb. (Note: The brackets must be extremely tight when the tower section is plumb.)
8. Remove the top 1/2" x 3-1/2" bolts on the pivot side of the tower that holds the pipe sleeves to the yokes. Then remove both bolts on the side opposite the pivot direction. The section can now be hinged to the ground.
9. Assemble the rest of the tower as per BX tower instructions. Hinge the tower up and when vertical put the 1/2" x 3-1/2" bolts back through the yokes and pipe sleeves. Then tighten all base bolts securely.
10. Complete filling the cylinder with dirt and tamp firmly.
11. After installation is completed, the base should be rechecked in about 30 days to be sure that the hardware remains tight and it should be rechecked every six months.
12. Towers installed in sand or gravel should be guyed or bracketed.

CAUTION ... Be sure hinge bolts on hinged type accessories are loosened before attempting to hinge tower over. All hinged type bases are recommended to be used to raise tower only without antenna. When raising and lowering tower on any hinged type base, the loads applied for hinging the tower must be applied equally on both sides of the tower in order to reduce the possibility of twist on tower and hinges at the base. Special care must be taken to avoid the use of raising and lowering methods which may cause damage to tower or hinges. Hinged bases should only be installed and dismantled by professional and experienced installers.

NOTES .....

Do not install towers near power lines. All towers should be installed out of falling distance of power lines since every electrical and telephone wire should be considered dangerous.

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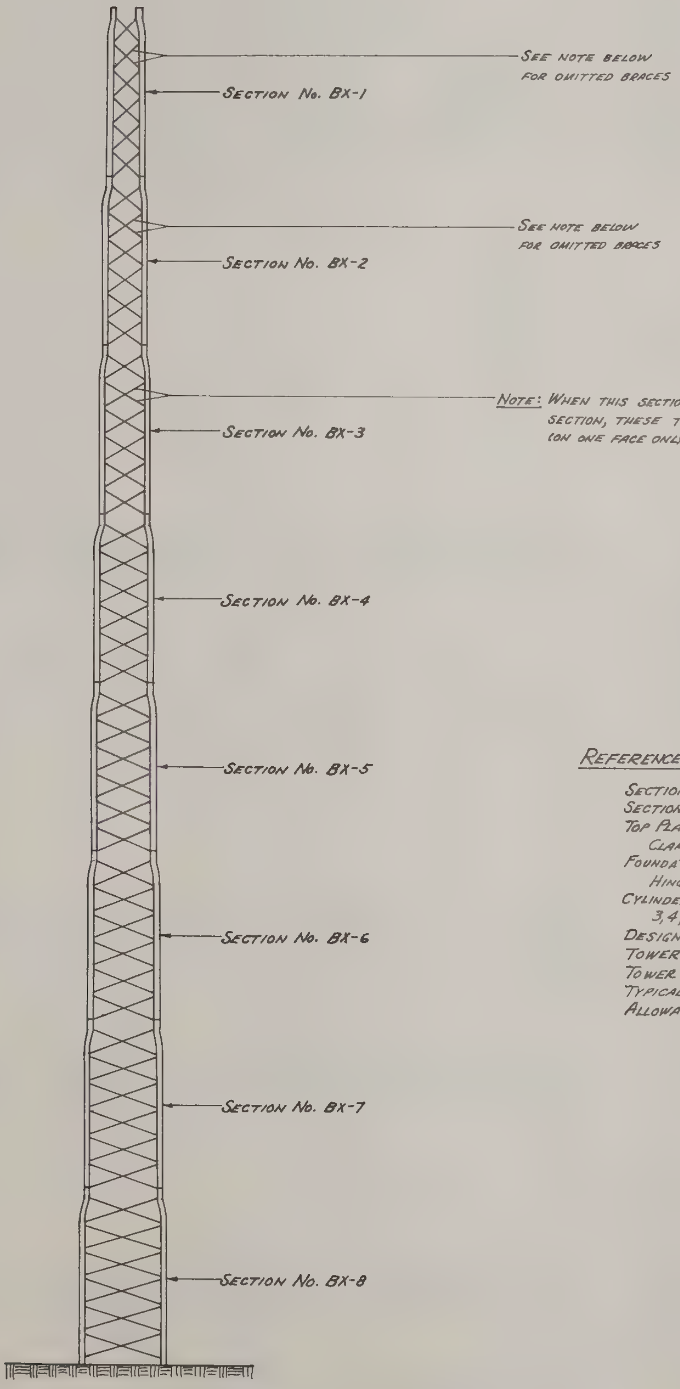

NOTE: When this section is used as the TOP section, these two braces are omitted (on one face only) to accomodate rotor.

REFERENCE DRAWINGS:

Section No. 1: Dwg. No. C-750429.
Sections 2 thru 8: Dwg. No. C-750430.
Top Plate, Rotor Plate, & Mast Clamps: Dwg. No. C-750429.
Foundation & Anchor Bolt Setting for Hinged Concrete Base: Dwg. No. C-760099.
Cylinder Base Installation for Sections 3, 4, 5 & 6: Dwg. No. C-750409-R2.
Design Assumptions: Dwg. No. A-750005.
Tower Section Properties: Dwg. No. B-760024.
Tower Design Data: Dwg. No. B-760025.
Typical Tower Analysis: Dwg. No. A-760000.
Allowable Antenna Loads: Dwg. No. A-760001.

NO.	DESCRIPTION	DATE	BY

REVISIONS

ROHN® MANUFACTURING
DIVISION OF UNARCO

TITLE
BX SERIES TOWER
TYPICAL 64' TOWER (SECTIONS 1 THRU 8)

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FILE NO.

SCALE NONE	MATERIAL	FINISH	WT.
DWN. BY AED	DATE 6-6-75	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
CK'D. BY DH	DATE 2-2-76	TOLERANCES DEC. ± FRAC. ± ANGLES ±	DWG. NO. C-750428
APP'D ENGRG. CW	DATE 2-18-76		
APP'D SALES	DATE 2-19-76		

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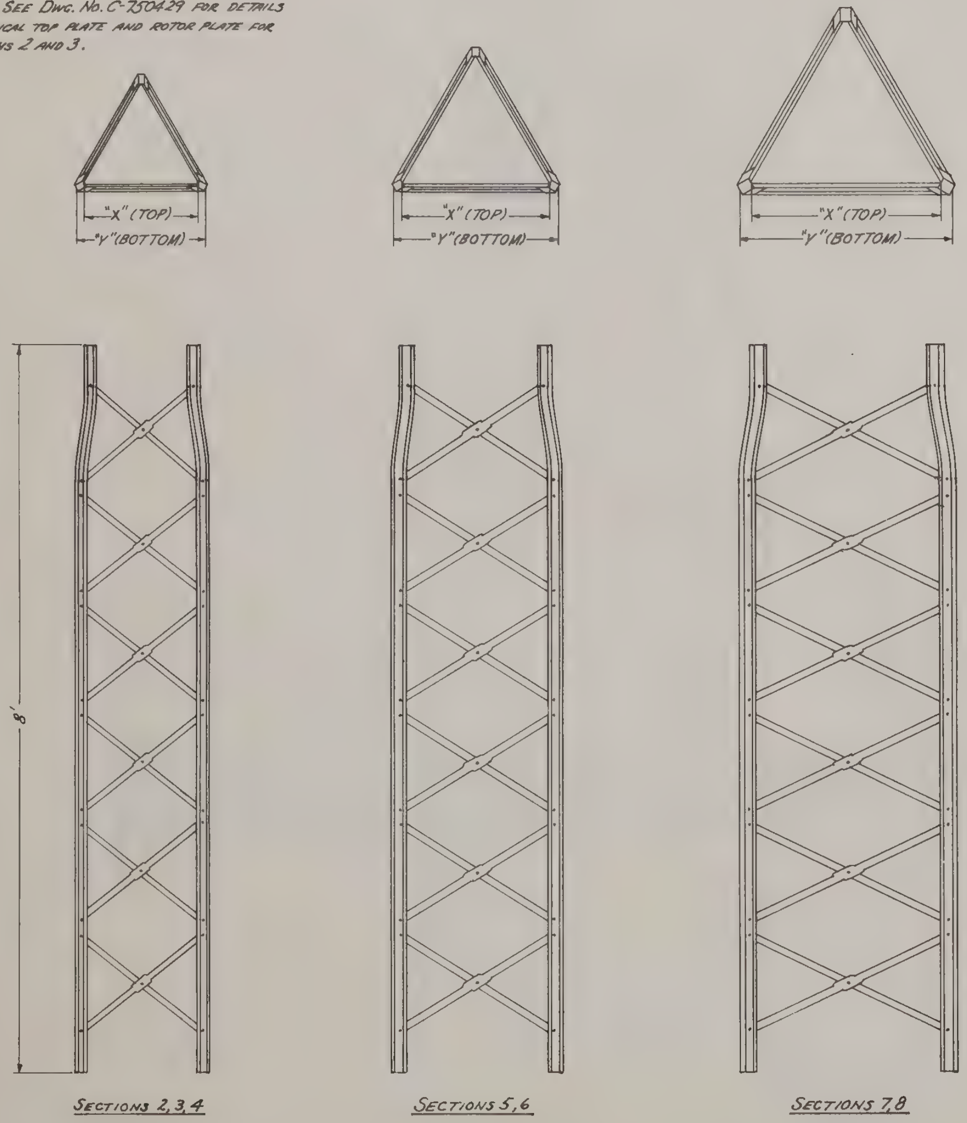
GAF 880-250 2-72 48194

NOTE: SEE DWG. NO. C-750429 FOR DETAILS OF TYPICAL TOP PLATE AND ROTOR PLATE FOR SECTIONS 2 AND 3.

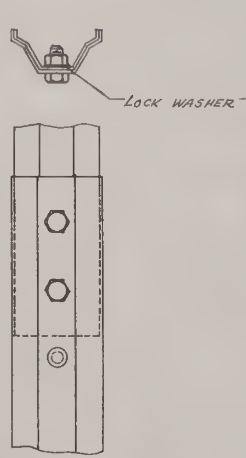


SECTIONS 2,3,4

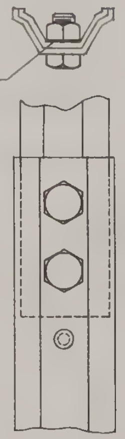
SECTIONS 5,6

SECTIONS 7,8

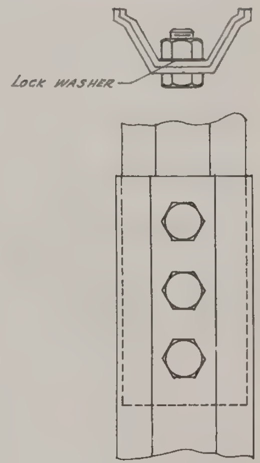
ELEVATIONS OF TYPICAL SECTIONS



TYPICAL LEG JOINT
BETWEEN
SECTIONS 1-2
SECTIONS 2-3



TYPICAL LEG JOINT
BETWEEN
SECTIONS 3-4
SECTIONS 4-5
SECTIONS 5-6
SECTIONS 6-7



TYPICAL LEG JOINT
BETWEEN
SECTIONS 7-8

SECTION No.	LEG JOINT BOLTS			"X" (TOP)	"Y" (BOTTOM)
	LOCATION	QTY.	SIZE		
BX-2	TOP	2	$\frac{3}{8} \times \frac{3}{4}$	$10\frac{7}{16}$	$12\frac{11}{16}$
	BOTTOM	2	$\frac{3}{8} \times \frac{3}{4}$		
BX-3	TOP	2	$\frac{3}{8} \times \frac{3}{4}$	$12\frac{13}{16}$	$15\frac{1}{16}$
	BOTTOM	2	$\frac{9}{16} \times 1$		
BX-4	TOP	2	$\frac{9}{16} \times 1$	$15\frac{3}{16}$	$17\frac{7}{16}$
	BOTTOM	2	$\frac{9}{16} \times 1$		
BX-5	TOP	2	$\frac{9}{16} \times 1$	$17\frac{5}{8}$	$20\frac{1}{8}$
	BOTTOM	2	$\frac{9}{16} \times 1$		
BX-6	TOP	2	$\frac{9}{16} \times 1$	$20\frac{5}{16}$	$22\frac{13}{16}$
	BOTTOM	2	$\frac{9}{16} \times 1$		
BX-7	TOP	2	$\frac{9}{16} \times 1$	23	$25\frac{1}{2}$
	BOTTOM	3	$\frac{9}{16} \times 1$		
BX-8	TOP	3	$\frac{9}{16} \times 1$	$25\frac{11}{16}$	$28\frac{7}{16}$
	BOTTOM	3	$\frac{9}{16} \times 1$		

NOTE: FOR STRAIGHT SECTIONS ELIMINATE "X" DIMENSION.

NO.	DESCRIPTION	DATE	BY

REVISIONS

ROHN® **MANUFACTURING**
DIVISION OF UNARCO

TITLE
BX SERIES TOWER
(SECTIONS 2 THROUGH 8)

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FILE NO.

SCALE NONE	MATERIAL	FINISH	WT.
DWN. BY AED	DATE 6-6-75	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
CK'D. BY OH	DATE -3-76	TOLERANCES DEC. ± FRAC. ± ANGLES ±	DWG. NO. C-750430
APP'D. ENGRG. CW	DATE 2-17-76		
APP'D. SALES	DATE 2-19-76		

GAF 880-250 2-72 48194

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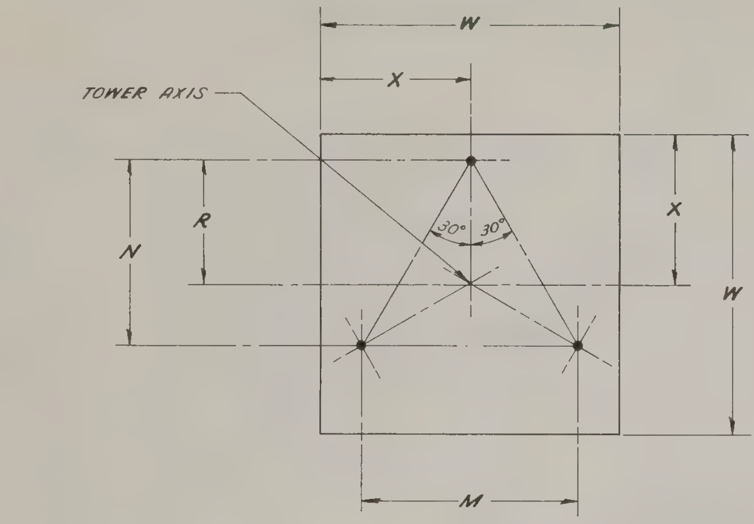
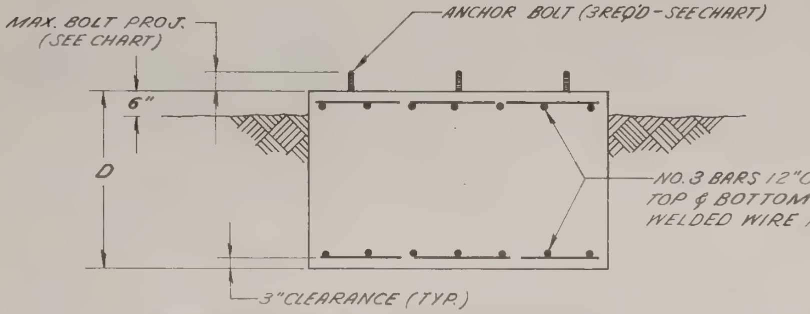
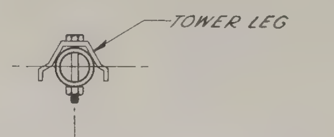


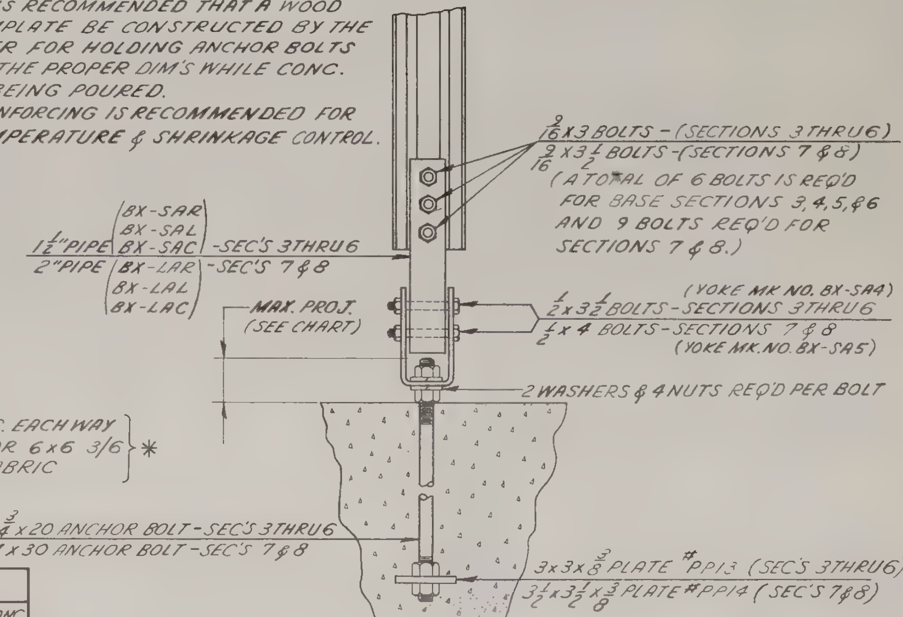

MAX. BOLT PROJ. (SEE CHART)
ANCHOR BOLT (3REQ'D - SEE CHART)
6"
D
NO. 3 BARS 12" O.C. EACH WAY TOP & BOTTOM OR 6x6 3/6 WELDED WIRE FABRIC *
3" CLEARANCE (TYP.)

FOUNDATION NOTES

1. CONCRETE, 3000 P.S.I. MIN. ULT. STRENGTH
2. ASTM A-615 GRADE 40 DEFORMED RE-BARS
3. ALL FORMS MUST BE REMOVED FROM CONCRETE BEFORE PLACING COMPACTED BACKFILL.
4. FOUNDATIONS DESIGNED FOR 2000 PSF SOIL.
5. IT IS RECOMMENDED THAT A WOOD TEMPLATE BE CONSTRUCTED BY THE USER FOR HOLDING ANCHOR BOLTS AT THE PROPER DIM'S WHILE CONC. IS BEING POURED.

*6. REINFORCING IS RECOMMENDED FOR TEMPERATURE & SHRINKAGE CONTROL.




$\frac{9}{16}$ X 3 BOLTS - (SECTIONS 3 THRU 6)
$\frac{9}{16}$ X $3\frac{1}{2}$ BOLTS - (SECTIONS 7 & 8)
(A TOTAL OF 6 BOLTS IS REQ'D FOR BASE SECTIONS 3, 4, 5, & 6 AND 9 BOLTS REQ'D FOR SECTIONS 7 & 8.)
$1\frac{1}{2}$" PIPE (BX-SAR BX-SAL BX-SAC) - SEC'S 3 THRU 6
2" PIPE (BX-LAR BX-LAL BX-LAC) - SEC'S 7 & 8
(YOKE MK NO. BX-SA4)
$\frac{1}{2}$ x $3\frac{1}{2}$ BOLTS - SECTIONS 3 THRU 6
$\frac{1}{2}$ x 4 BOLTS - SECTIONS 7 & 8
(YOKE MK. NO. BX-SA5)
MAX. PROJ. (SEE CHART)
2 WASHERS & 4 NUTS REQ'D PER BOLT
$\frac{3}{4}$ x 20 ANCHOR BOLT - SEC'S 3 THRU 6
1 x 30 ANCHOR BOLT - SEC'S 7 & 8
3 x 3 x $\frac{3}{8}$ PLATE # PP13 (SEC'S 3 THRU 6)
$3\frac{1}{2}$ x $3\frac{1}{2}$ x $\frac{3}{8}$ PLATE # PP14 (SEC'S 7 & 8)

3FT. THICK PAD FOUNDATION

SEC NO.	M	N	R	MAX. PROJ.	ANCHOR BOLT	BEARING ℞	D	W	X	CU. YDS. CONC.
3	$13\frac{5}{16}$"	$11\frac{1}{2}$"	$7\frac{11}{16}$"	$2\frac{5}{8}$"	5-$\frac{3}{4}$ X 20"	PP13	3'-0"	3'-9	1'-$10\frac{1}{2}$	1.6
4	$15\frac{11}{16}$"	$13\frac{9}{16}$"	$9\frac{1}{16}$"	$2\frac{5}{8}$"	3-$\frac{3}{4}$ X 20"	PP13	3'-0"	4'-3	2'-$1\frac{1}{2}$	2.0
5	$18\frac{5}{16}$"	$15\frac{7}{8}$"	$10\frac{9}{16}$"	$2\frac{5}{8}$"	3-$\frac{3}{4}$ X 20"	PP13	3'-0"	4'-9	2'-$4\frac{1}{2}$	2.5
6	21"	$18\frac{3}{16}$"	$12\frac{1}{8}$	$2\frac{5}{8}$"	3-$\frac{3}{4}$ X 20"	PF13	3'-0"	5'-3	2'-$7\frac{1}{2}$	3.1
7	$23\frac{1}{4}$"	$20\frac{1}{8}$"	$13\frac{7}{16}$	$3\frac{1}{4}$"	3-1 X 30"	PP14	3'-0"	6'-0	3'-0	4.0
8	$26\frac{3}{16}$"	$22\frac{11}{16}$"	$15\frac{1}{8}$	$3\frac{1}{4}$"	3-1 X 30"	PP14	3'-0"	6'-6	3'-3	4.7

4FT. THICK PAD FOUNDATION

SEC NO.	M	N	R	MAX. PROJ.	ANCHOR BOLT	BEARING ℞	D	W	X	CU. YDS CONC.
3	$13\frac{5}{16}$"	$11\frac{1}{2}$"	$7\frac{11}{16}$"	$2\frac{5}{8}$"	3-$\frac{3}{4}$ X 20"	PP13	4'-0"	3'-6	1'-9	1.8
4	$15\frac{11}{16}$"	$13\frac{9}{16}$"	$9\frac{1}{16}$"	$2\frac{5}{8}$"	3-$\frac{3}{4}$ X 20"	PP13	4'-0"	4'-0	2'-0	2.4
5	$18\frac{5}{16}$"	$15\frac{7}{8}$"	$10\frac{9}{16}$"	$2\frac{5}{8}$"	3-$\frac{3}{4}$ X 20"	PP13	4'-0"	4'-6	2'-3	3.0
6	21"	$18\frac{3}{16}$"	$12\frac{1}{8}$"	$2\frac{5}{8}$"	3-$\frac{3}{4}$ X 20"	PP13	4'-0"	4'-9	2'-$4\frac{1}{2}$	3.4
7	$23\frac{1}{4}$"	$20\frac{1}{8}$"	$13\frac{7}{16}$"	$3\frac{1}{4}$"	3-1 X 30"	PP14	4'-0"	5'-3	2'-$7\frac{1}{2}$	4.1
8	$26\frac{3}{16}$"	$22\frac{11}{16}$"	$15\frac{1}{8}$"	$3\frac{1}{4}$"	3-1 X 30"	PP14	4'-0"	5'-9	2'-$10\frac{1}{2}$	49

No ▲	Revision Description	▲ Date	▲ By
R3	REVISED P/N'S IN BEARING ℞ COLUMN.	4/17/79	GLS
R2	P/N'S PP13 & PP14 WERE PL-30 & PL-35.	11/22/78	GLS
R1	ADDED YOKE MK. NO'S & REVISED PIPE MK. NO'S	4-8-76	OH

Unarco-Rohn
Division of Unarco Industries, inc

Title
FOUNDATION & ANCHOR BOLT DETAILS
for MODEL BX TOWER

Scale	NONE	
Drawn by	O.H.	Date 1-30-76
Checked by	AED	Date 2-3-76
Approved by Engineering	CW	Date 2.3.76
Approved by Production		Date
Approved by Sales	RAK	Date 2-19-76

Unless otherwise specified, dimensions are given in inches
Tolerances
Decimals ± Fractions ± Angles +
Material Finish Weight

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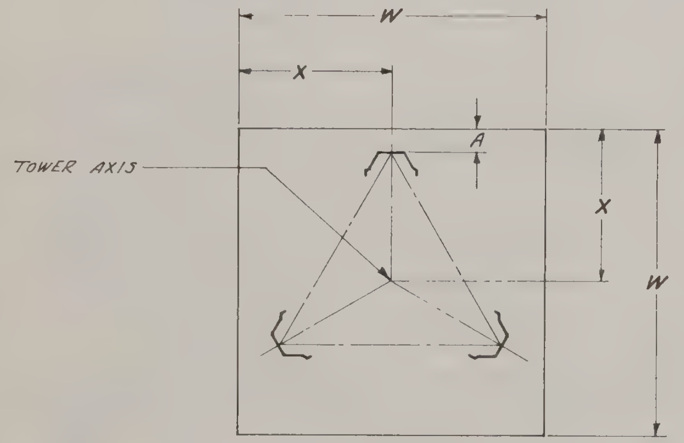
File Number

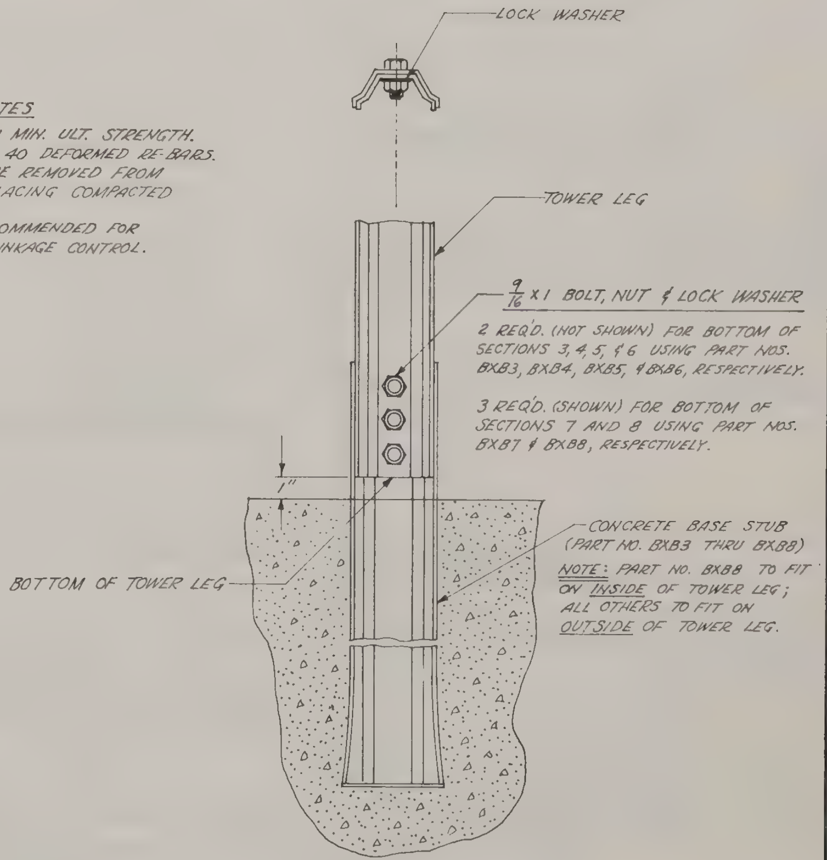
Drawing Number C-760099 R3



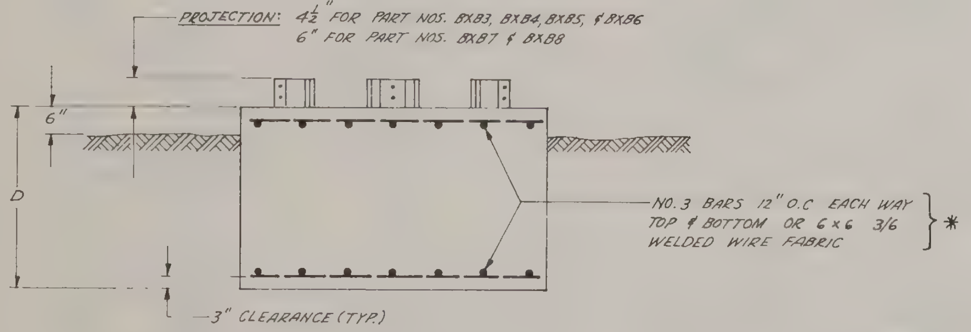
FOUNDATION NOTES

1. CONCRETE, 3000 PSI MIN. ULT. STRENGTH.
2. ASTM A-615 GRADE 40 DEFORMED RE-BARS.
3. ALL FORMS MUST BE REMOVED FROM CONCRETE BEFORE PLACING COMPACTED BACKFILL.

* 4. REINFORCING IS RECOMMENDED FOR TEMPERATURE & SHRINKAGE CONTROL.



LOCK WASHER
TOWER LEG
$\frac{9}{16}$ x 1 BOLT, NUT & LOCK WASHER
2 REQ'D. (NOT SHOWN) FOR BOTTOM OF SECTIONS 3, 4, 5, & 6 USING PART NOS. BXB3, BXB4, BXB5, & BXB6, RESPECTIVELY.
3 REQ'D. (SHOWN) FOR BOTTOM OF SECTIONS 7 AND 8 USING PART NOS. BXB7 & BXB8, RESPECTIVELY.
1"
CONCRETE BASE STUB (PART NO. BXB3 THRU BXB8)
NOTE: PART NO. BXB8 TO FIT ON INSIDE OF TOWER LEG; ALL OTHERS TO FIT ON OUTSIDE OF TOWER LEG.
BOTTOM OF TOWER LEG



PROJECTION: 4½" FOR PART NOS. BXB3, BXB4, BXB5, & BXB6
6" FOR PART NOS. BXB7 & BXB8
6"
D
NO. 3 BARS 12" O.C EACH WAY TOP & BOTTOM OR 6 x 6 3/6 WELDED WIRE FABRIC *
3" CLEARANCE (TYP.)

FOUNDATION PAD

SECT. NO.	W	X	D	CU. YDS. CONCR.	A
3	3'-6"	1'-9"	4'-0"	1.8	1'-0¼"
4	4'-0"	2'-0"	4'-0"	2.4	1'-2"
5	4'-6"	2'-3"	4'-0"	3.0	1'-3½"
6	4'-9"	2'-4½"	4'-0"	3.4	1'-3½"
7	5'-3"	2'-7½"	4'-0"	4.1	1'-4¾"
8	5'-9"	2'-10½"	4'-0"	4.9	1'-6"

No ▲ Revision Description ▲ Date ▲ By

Unarco-Rohn
Division of Unarco Industries Inc

Title
FOUNDATION FOR CONCRETE BASE STUBS FOR BX TOWER

Scale NONE
Drawn by AED Date 4-5-78
Checked by OK Date 5-24-78
Approved by Engineering CW Date 5-24-78
Approved by Production Date
Approved by Sales Date 5-24-78

Unless otherwise specified dimensions are given in inches
Tolerances
Decimals ± Fractions ± Angles ±
Material Finish Weight

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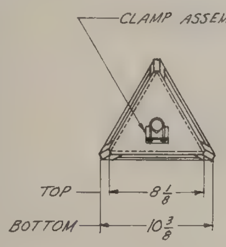
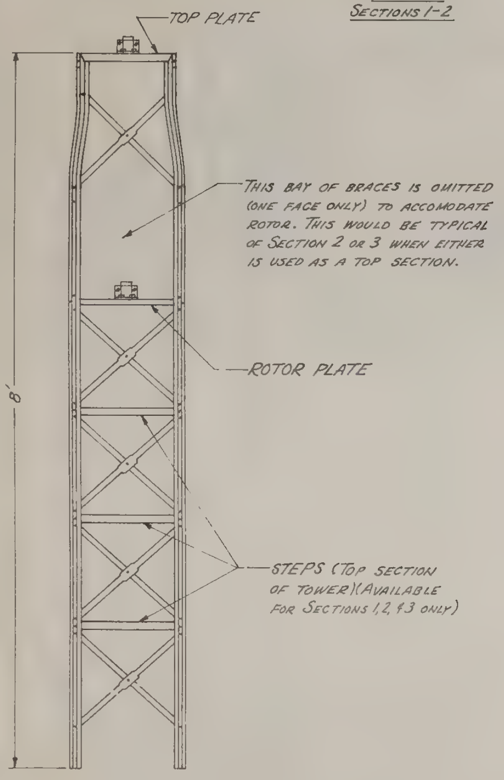
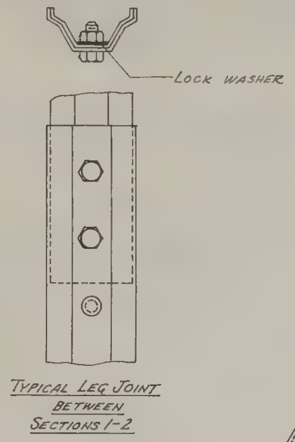
File Number
Drawing Number C780284

NOTE: FOR STRAIGHT SECTION ELIMINATE $8\frac{1}{8}''$ DIMENSION

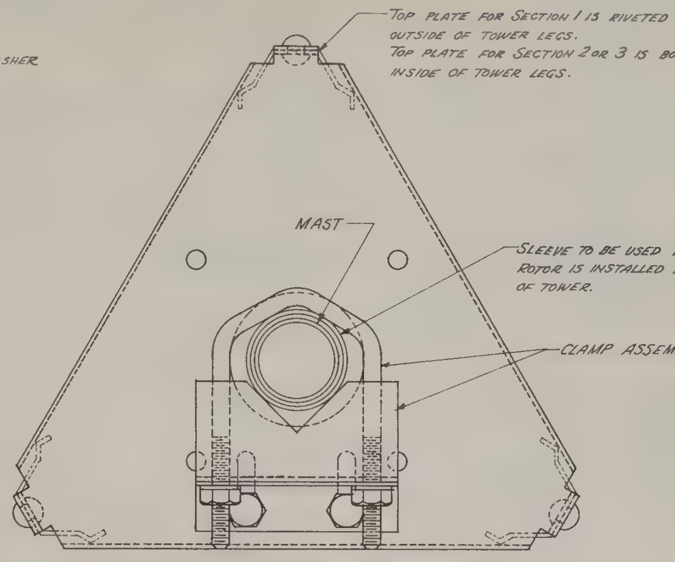



TOP PLATE
THIS BAY OF BRACES IS OMITTED (ONE FACE ONLY) TO ACCOMODATE ROTOR. THIS WOULD BE TYPICAL OF SECTION 2 OR 3 WHEN EITHER IS USED AS A TOP SECTION.
ROTOR PLATE
STEPS (TOP SECTION OF TOWER)(AVAILABLE FOR SECTIONS 1, 2, & 3 ONLY)
8'

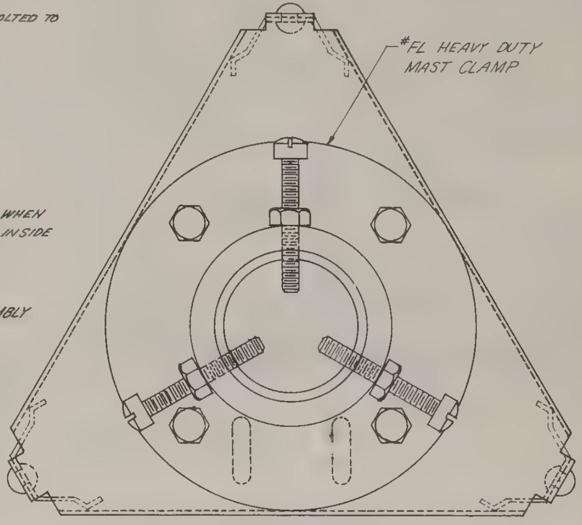
SECTION 1



TYPICAL LEG JOINT BETWEEN SECTIONS 1-2

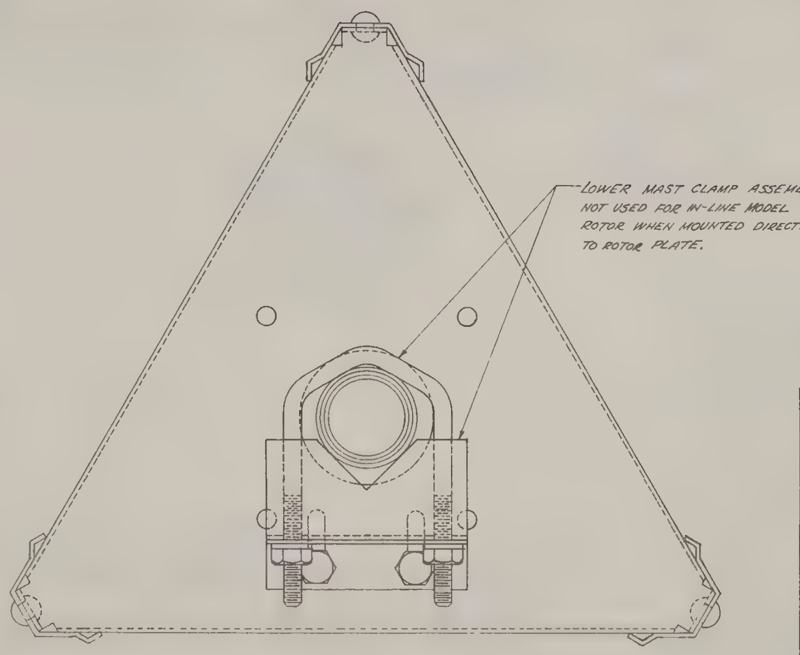

TOP PLATE FOR SECTION 1 IS RIVETED TO OUTSIDE OF TOWER LEGS.
TOP PLATE FOR SECTION 2 OR 3 IS BOLTED TO INSIDE OF TOWER LEGS.
MAST
SLEEVE TO BE USED WHEN ROTOR IS INSTALLED INSIDE OF TOWER.
CLAMP ASSEMBLY

TOP PLATE WITH CLAMP ASSEMBLY



TOP PLATE WITH #FL HEAVY DUTY MAST CLAMP

NOTE:
THE CLAMP ASSEMBLY IS NORMALLY USED WITH SECTION 1 AS A TOP SECTION. THE #FL HEAVY DUTY MAST CLAMP IS NORMALLY USED WITH SECTION 2 OR 3 AS A TOP SECTION. HOLES ARE PLACED ON ALL TOP PLATES AND ROTOR PLATES, HOWEVER, TO ACCOMODATE EITHER ONE.


LOWER MAST CLAMP ASSEMBLY NOT USED FOR IN-LINE MODEL ROTOR WHEN MOUNTED DIRECTLY TO ROTOR PLATE.

ROTOR PLATE WITH CLAMP ASSEMBLY

NO.	DESCRIPTION	DATE	BY
	REVISIONS		

ROHN® MANUFACTURING
DIVISION OF

TITLE
BX SERIES TOWER
(SECTION 1)

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FILE NO.

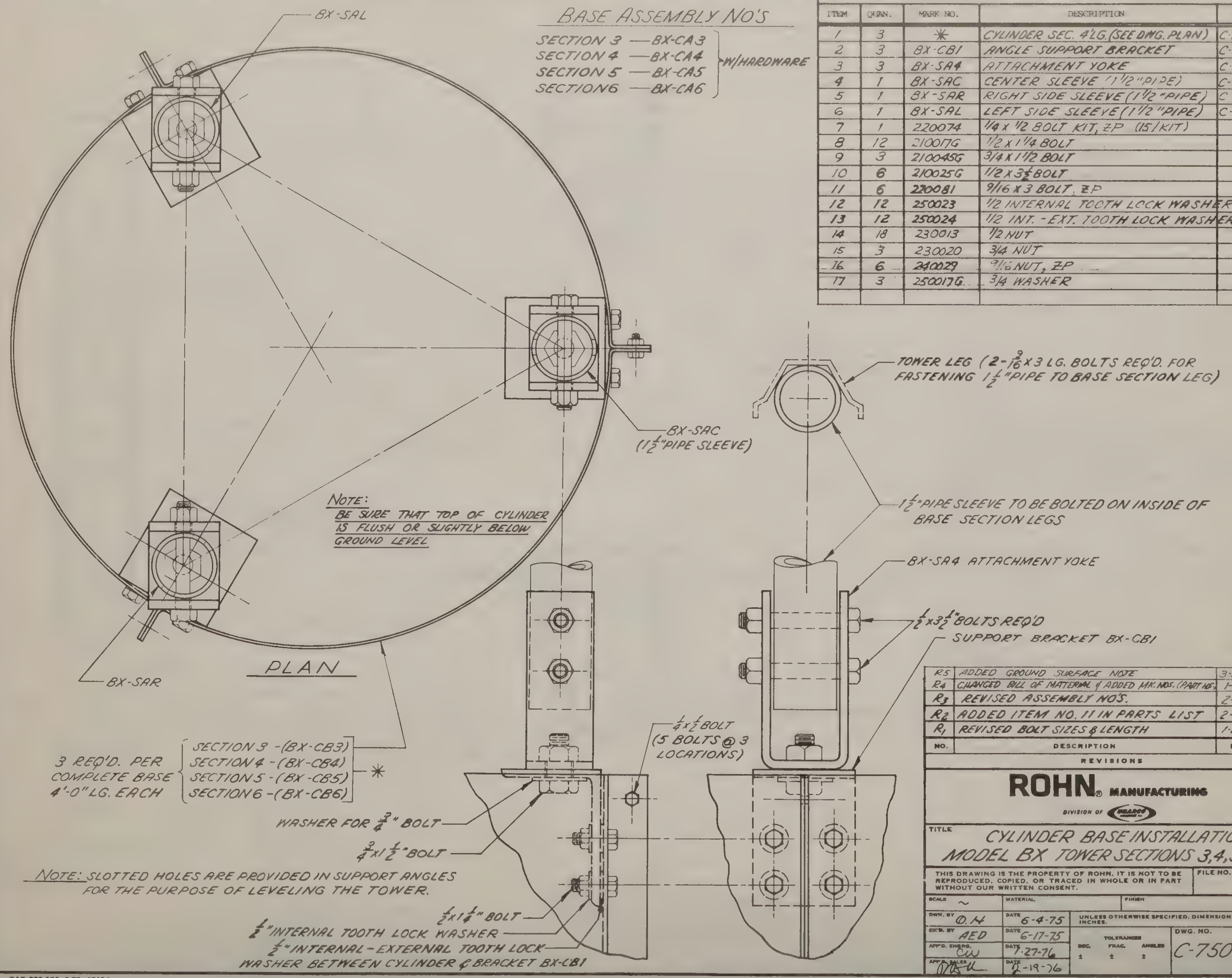
SCALE NONE	MATERIAL	FINISH	WT.
DWN. BY AEO	DATE 6-6-75	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
CK'D. BY	DATE 2-3-76	TOLERANCES DEC. ± FRAC. ± ANGLES ±	DWG. NO. C-750429
APP'D. ENGRG	DATE 2 17-76		
APP'D. SALES	DATE 2-9-76		

BILL OF MATERIAL

ITEM	QUAN.	MARK NO.	DESCRIPTION	DWG. NO.
1	3	✳	CYLINDER SEC. 4'LG.(SEE DWG. PLAN)	C-750410
2	3	BX-CB1	ANGLE SUPPORT BRACKET	C-750410
3	3	BX-SA4	ATTACHMENT YOKE	C-750376
4	1	BX-SAC	CENTER SLEEVE (1 1/2"PIPE)	C-750376
5	1	BX-SAR	RIGHT SIDE SLEEVE (1 1/2"PIPE)	C 750376
6	1	BX-SAL	LEFT SIDE SLEEVE (1 1/2"PIPE)	C-750376
7	1	220074	1/4 x 1/2 BOLT KIT, ZP (15/KIT)	
8	12	210017G	1/2 x 1 1/4 BOLT	
9	3	210045G	3/4 x 1 1/2 BOLT	
10	6	210025G	1/2 x 3$\frac{1}{2}$ BOLT	
11	6	220081	9/16 x 3 BOLT, ZP	
12	12	250023	1/2 INTERNAL TOOTH LOCK WASHER	
13	12	250024	1/2 INT. - EXT. TOOTH LOCK WASHER	
14	18	230013	1/2 NUT	
15	3	230020	3/4 NUT	
16	6	240029	9/16 NUT, ZP	
17	3	250017G	3/4 WASHER	

BASE ASSEMBLY NO'S

SECTION 3 — BX-CA3
SECTION 4 — BX-CA4
SECTION 5 — BX-CA5
SECTION 6 — BX-CA6
} W/HARDWARE


BX-SAL
BX-SAC
($1\frac{1}{2}$"PIPE SLEEVE)
BX-SAR
PLAN
3 REQ'D. PER COMPLETE BASE 4'-0" LG. EACH
SECTION 3 - (BX-CB3)
SECTION 4 - (BX-CB4)
SECTION 5 - (BX-CB5)
SECTION 6 - (BX-CB6)
✳
TOWER LEG (2-$\frac{9}{16}$x3 LG. BOLTS REQ'D. FOR FASTENING $1\frac{1}{2}$"PIPE TO BASE SECTION LEG)
$1\frac{1}{2}$"PIPE SLEEVE TO BE BOLTED ON INSIDE OF BASE SECTION LEGS
BX-SA4 ATTACHMENT YOKE
$\frac{1}{2}$x$3\frac{1}{2}$"BOLTS REQ'D
SUPPORT BRACKET BX-CB1
$\frac{1}{4}$x$\frac{1}{2}$ BOLT (5 BOLTS @ 3 LOCATIONS)
WASHER FOR $\frac{3}{4}$" BOLT
$\frac{3}{4}$x$1\frac{1}{2}$"BOLT
$\frac{1}{2}$x$1\frac{1}{4}$" BOLT
$\frac{1}{2}$"INTERNAL TOOTH LOCK WASHER
$\frac{1}{2}$"INTERNAL-EXTERNAL TOOTH LOCK WASHER BETWEEN CYLINDER & BRACKET BX-CB1

NOTE: BE SURE THAT TOP OF CYLINDER IS FLUSH OR SLIGHTLY BELOW GROUND LEVEL

NOTE: SLOTTED HOLES ARE PROVIDED IN SUPPORT ANGLES FOR THE PURPOSE OF LEVELING THE TOWER.

NO.	DESCRIPTION	DATE	BY
R5	ADDED GROUND SURFACE NOTE	3-22-79	AED
R4	CHANGED BILL OF MATERIAL & ADDED MK. NOS. (PART NOS.)	1-5-78	AED
R3	REVISED ASSEMBLY NO'S.	2-12-76	OH
R2	ADDED ITEM NO. 11 IN PARTS LIST	2-1-76	OH
R1	REVISED BOLT SIZES & LENGTH	1-21-76	OH

REVISIONS

ROHN® MANUFACTURING
DIVISION OF UNARCO

TITLE
CYLINDER BASE INSTALLATION for
MODEL BX TOWER SECTIONS 3,4,5,&6

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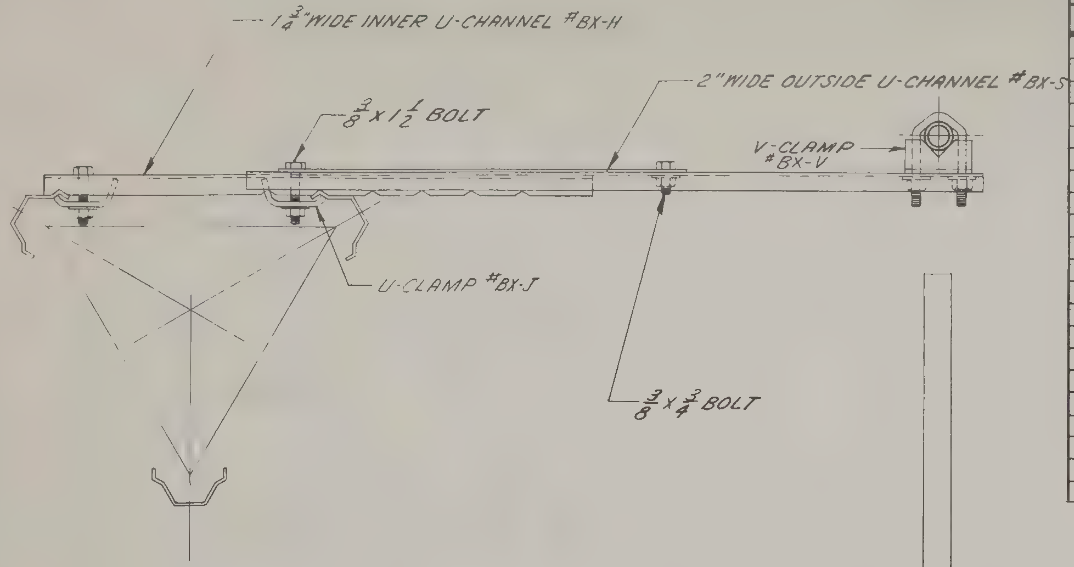
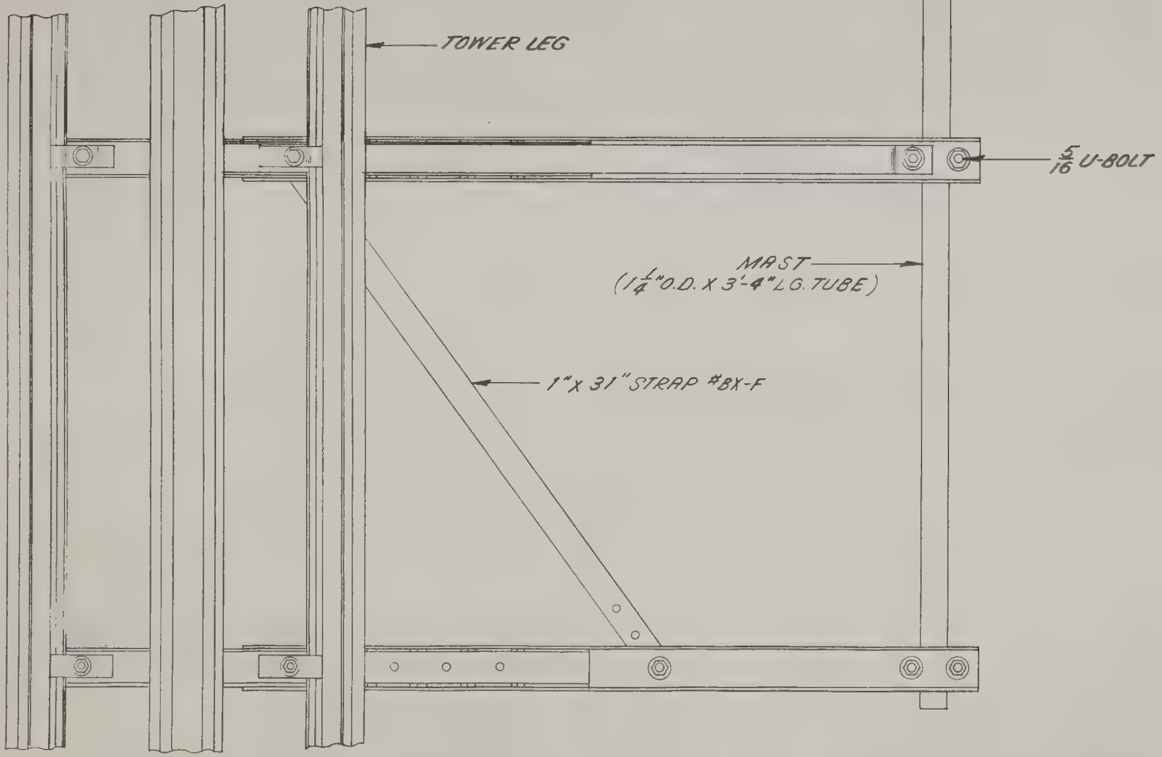
FILE NO.

SCALE ~	MATERIAL	FINISH	WT.
DWN. BY O.H	DATE 6-4-75	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
CK'D. BY AED	DATE 6-17-75	TOLERANCES DEC. ± FRAC. ± ANGLES ±	DWG. NO. C-750409 R5
APP'D. ENGRG. CW	DATE 7-27-76		
APP'D. SALES	DATE 2-19-76		


$1\frac{3}{4}$"WIDE INNER U-CHANNEL #BX-H
$\frac{3}{8}$ X $1\frac{1}{2}$ BOLT
2"WIDE OUTSIDE U-CHANNEL #BX-S
V-CLAMP #BX-V
U-CLAMP #BX-J
$\frac{3}{8}$ X $\frac{3}{4}$ BOLT



BILL OF MATERIAL

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
1	2	BX-S	2" WIDE OUTSIDE CHANNEL	C-76024-R1
2	2	BX-H	$1\frac{3}{4}$" WIDE INNER CHANNEL	C-76024-R1
3	4	BX-J	U-CLAMP	C-7602[illegible]8
4	1	BX-F	1" x 31" STRAP	C-760228
5	1	49040000PHP	$1\frac{1}{4}$"O.D. x 18 GA. TUBE 3'-4" LONG	
6	4	220086	$\frac{3}{8}$" x $1\frac{1}{2}$" BOLT	
7	5	240021	$\frac{3}{8}$" NUT	
8	1	220069	$\frac{3}{8}$" x $\frac{3}{4}$" BOLT	
9	5	250025	$\frac{3}{8}$" WASHER	
10	2	270034	$\frac{5}{16}$" U-BOLT	
11	4	240014	$\frac{5}{16}$" NUT	
12	4	250029	$\frac{5}{16}$" WASHER	
13	2	BX-V	V-CLAMP	

NOTE: WASHERS SUPPLIED FOR ALL BOLTS.

No. ▲	Revision Description	▲Date	▲By
R2	ADDED BILL OF MAT'RL.; DELETED BACK BRACE	2-23-77	AED
R1	ADDED PART NO'S.	1-27-77	OH

Unarco-Rohn
Division of Unarco Industries, Inc.

Title
BX-SM MOUNT ASSEMBLY

Scale ~

Unless otherwise specified, dimensions are given in inches
Tolerances
Decimals ± Fractions ± Angles ±
Material Finish Weight

Drawn by O.H Date 10-9-75
Checked by WDU Date 10-10-75
Approved by Engineering CW Date 10-10-75
Approved by Production Date
Approved by Sales RAL Date 3-30-77

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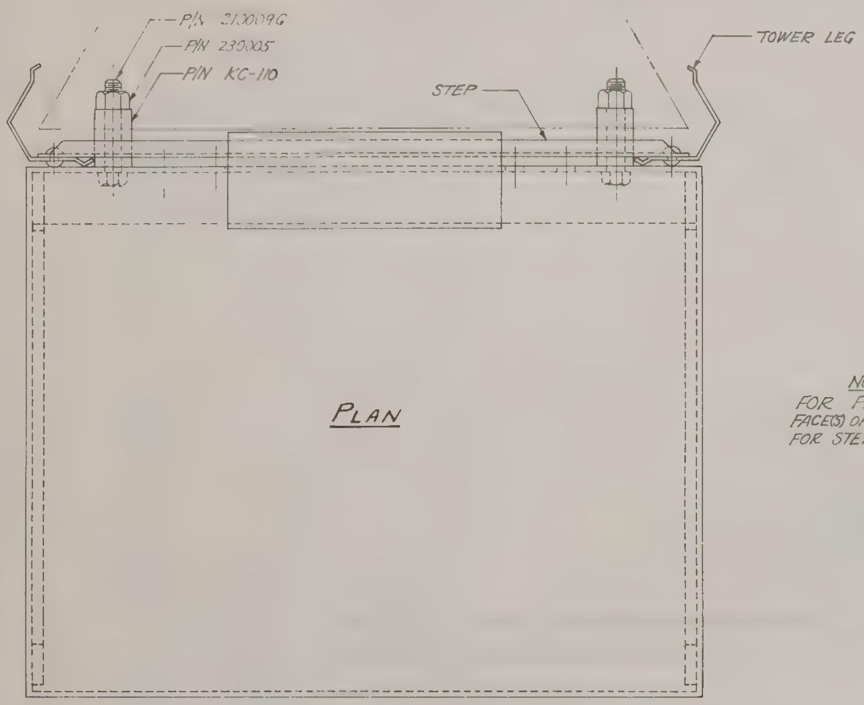
File Number

Drawing Number C-750946 R2



PLAN

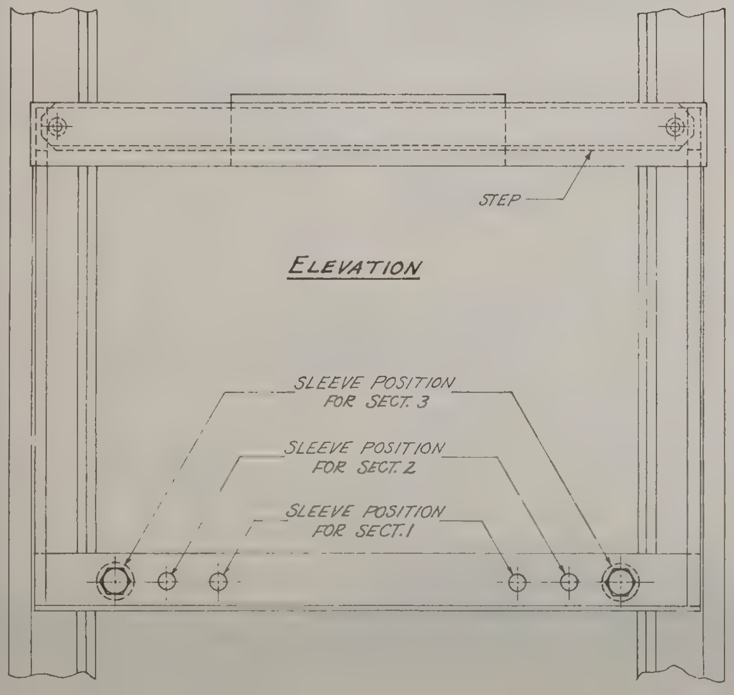
NOTE: STEP KITS ARE AVAILABLE FOR PLACEMENT OF STEPS ON OTHER FACE(S) OF TOWER. (SEE BILL OF MATERIAL FOR STEP KITS AT RIGHT).

BILL OF MATERIAL (WORK PLATFORM)

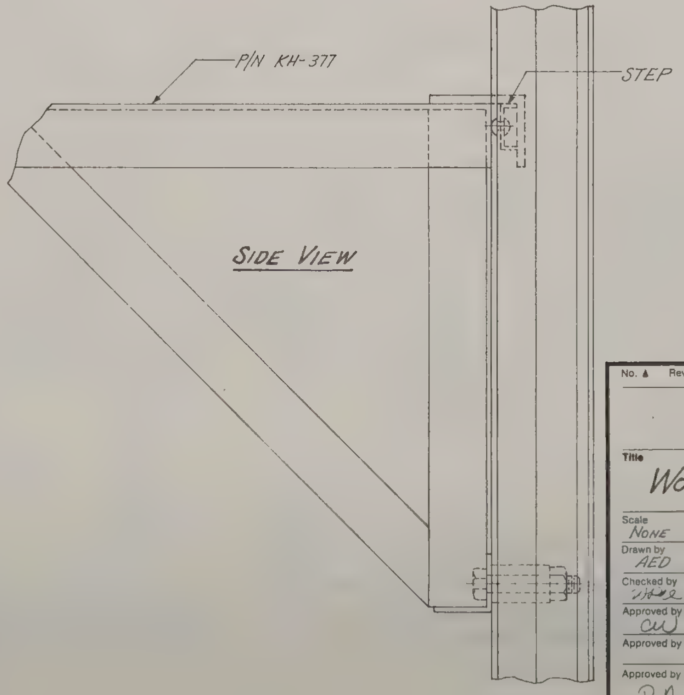
ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
PART NO. WP-BX (WORK PLATFORM) HAS THE FOLLOWING COMPONENTS:				
1	2	210009G	$\frac{3}{8}$ x 2 BOLT	
2	2	230005	$\frac{3}{8}$ NUT	
3	2	KC-110	TS $\frac{13}{16}$ O.D. x .187 ($1\frac{1}{4}$" LONG)	C-750089
4	1	KH-377	PLATFORM	C-770237

BILL OF MATERIAL (STEP KITS)(OPTIONAL)

ITEM	QUAN.	PART NO.	DESCRIPTION	DWG. NO.
PART NO. BX-SK1 (STEP KIT FOR SECT. 1) HAS THE FOLLOWING COMPONENTS:				
	6	220090	NO.8 x $\frac{11}{16}$ RD. HD. MACHINE SCREW	
	6	240033	NO.8 NUT	
	3	BX1S	STEP	B-751153 R1
PART NO. BX-SK2 (STEP KIT FOR SECT. 2) HAS THE FOLLOWING COMPONENTS:				
	6	220090	NO.8 x $\frac{11}{16}$ RD. HD. MACHINE SCREW	
	6	240033	NO.8 NUT	
	3	BX2S	STEP	B-751153 R1
PART NO. BX-SK3 (STEP KIT FOR SECT. 3) HAS THE FOLLOWING COMPONENTS:				
	6	220090	NO.8 x $\frac{11}{16}$ RD. HD. MACHINE SCREW	
	6	240033	NO.8 NUT	
	3	BX3S	STEP	B-751153 R1


STEP
SLEEVE POSITION FOR SECT. 3
SLEEVE POSITION FOR SECT. 2
SLEEVE POSITION FOR SECT. 1

ELEVATION



SIDE VIEW

No. ▲ Revision Description ▲Date ▲By

Unarco-Rohn
Division of Unarco Industries, Inc.

Title
WORK PLATFORM FOR BX TOWER

Scale NONE	Unless otherwise specified, dimensions are given in inches
Drawn by AED Date 4-5-77	Tolerances Decimals ± Fractions ± Angles ±
Checked by Date 4-14-77	Material Finish Weight
Approved by Engineering CW Date 5-9-77	This drawing is the property of Unarco-Rohn. It is not to be reproduced, copied or traced in whole or in part without our written consent.
Approved by Production Date	File Number
Approved by Sales RAR Date 6-16-77	Drawing Number C-770238

TYPICAL TOWER ANALYSIS

TOWER DESIGN DATA: MODEL BX-64
WIND PRESSURE —— 20 PSF
ANTENNA LOAD — 6 SQ. FT. AT 3 FT. ABOVE
TOWER TOP - $\frac{1}{2}$ IN. LINE
ANTENNA WT. = 50 LBS.
LINE WT. = 0.5 LBS./FT.

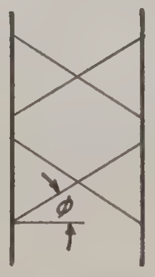
NOTE: ANTENNAS DEVELOPING A LARGE TWISTING MOMENT DUE TO WIND MUST NOT BE USED ON THIS TOWER. ANTENNAS SHOULD BE LIMITED TO THOSE HAVING A MAXIMUM BOOM LENGTH OF 10 FT.

SECTION No.	8	7	6	5	4	3	2	1
DISTANCE FROM TOP (FT.)	61.7	53.7	46.0	38.3	30.7	23.0	15.3	7.7
WIND ON SECTION (LBS.)	179.7	161.7	150.0	139.5	115.5	107.7	101.1	96.0
WIND ON ANTENNA & LINE (LBS.)	5.5	5.3	5.3	5.3	5.3	5.3	5.3	127.4
TOTAL WIND ON SECTION (LBS.)	185.2	167.0	155.3	144.8	120.8	113.0	106.4	223.4
SHEAR (LBS.)	1215.9	1030.7	863.7	708.4	563.6	442.8	329.8	223.4
MOMENT (FT.-LBS.)	37,770	28,790	21,530	15,500	10,620	6770	3810	1690
FACE WIDTH (FT.)	2.284	2.047	1.824	1.602	1.381	1.184	.989	.794
.866 × FACE WIDTH (FT.)	1.978	1.773	1.580	1.388	1.196	1.025	.856	.688
LEG LOAD (LBS.) ①	19,100	16,240	13,630	11,170	8880	6600	4450	2460
SECTION WEIGHT (LBS.)	82	75	64	59	41	28	23	22
TOTAL WEIGHT (LBS.)	476	390	312	244	181	136	104	77
*LEG LOAD WITH WEIGHT (LBS.)	19,260	16,370	13,730	11,250	8940	6650	4490	2480
SHEAR ONE FACE (LBS.) ②	815	691	579	475	378	297	221	150
cos φ	.904	.883	.858	.827	.783	.733	.667	.580
*LOAD EACH BRACE (LBS.) ③	451	391	337	287	241	203	166	129

① $\text{LEG LOAD} = \dfrac{\text{MOMENT}}{.866 \times \text{FACE WIDTH}}$

② SHEAR ONE FACE = .67 × SHEAR

③ $\text{LOAD EACH BRACE} = \dfrac{\text{SHEAR ONE FACE}}{2 \times \cos\phi}$



* REFER TO DWG. No. B-760025 FOR ALLOWABLE LOADS OF MEMBERS & CONNECTIONS.

DWG. No. A-760000

MODEL BX TOWER

ALLOWABLE ANTENNA LOADS *

WIND PRESSURE = 20 PSF (70.7 MPH)

NOMINAL HEIGHT, FT.	COMBINATION OF TOWER SECTIONS	CATALOG NO.	AREA, SQ.FT.	THRUST, LBS.
24	BX-1-2-3	BX 24	6	120
	BX-2-3-4	HBX 24	12	240
	BX-3-4-5	HDBX 24	20	400
32	BX-1-2-3-4	BX 32	6	120
	BX-2-3-4-5	HBX 32	12	240
	BX-3-4-5-6	HDBX 32	18	360
40	BX-1-2-3-4-5	BX 40	6	120
	BX-2-3-4-5-6	HBX 40	10	200
	BX-3-4-5-6-7	HDBX 40	18	360
48	BX-1-2-3-4-5-6	BX 48	6	120
	BX-2-3-4-5-6-7	HBX 48	10	200
	BX-3-4-5-6-7-8	HDBX 48	18	360
56	BX-1-2-3-4-5-6-7	BX 56	6	120
	BX-2-3-4-5-6-7-8	HBX 56	10	200
64	BX-1-2-3-4-5-6-7-8	BX 64	6	120

* THIS LOAD CAN BE APPLIED AT A POINT 3 FT. ABOVE THE APEX OF THE TOWER IN ADDITION TO THE GIVEN WIND PRESSURE ACTING ON THE TOWER.

NOTE: ANTENNA TYPES SHOULD BE LIMITED TO THOSE HAVING A MAXIMUM BOOM LENGTH OF 10 FT.

DWG. NO. A-760001

PARTS LIST P-285
(Replaces P-283)

September 1, 1977

BX TOWER

TOWERS AS PACKAGED FOR SHIPPING																			OPTIONAL ACCESSORIES																
TOWER MODEL		BX-1A	BXS-1	BX-2	BX-2A	BXS-2	BX-3	BX-3A	BX-4	BX-5	BX-6	BX-7	BX-8	FL	M-8	EX-B1	EXDR-1	EX-H1	EX-H2	BXB-3	BXB-4	BXB-5	BXB-6	BXB-7	BXB-8	BX-CA3	BX-CA4	BX-CA5	BX-CA6	BX-CHK*	BX-HC-36	BX-HC-78	BX-SM	EX-R1	EF-BX
BX	24	x		x			x								x					–						–				–	–		–		–
	32	x		x			x		x						x						–						–			–	–		–		–
	40	x		x			x		x	x					x							–						–		–	–		–		–
	48	x		x			x		x	x	x				x								–						–	–	–		–		–
	56	x		x			x		x	x	x	x			x									–						*Supplied with all Cylinder Bases		–	–		–
	64	x		x			x		x	x	x	x	x		x										–							–	–		–
HBX	24				x		x		x					x							–										–		–		–
	32				x		x		x	x				x								–									–		–		–
	40				x		x		x	x	x			x									–								–		–		–
	48				x		x		x	x	x	x		x										–								–	–		–
	56				x		x		x	x	x	x	x	x											–							–	–		–
HDBX	24							x	x	x				x								–									–		–		–
	32							x	x	x	x			x									–								–		–		–
	40							x	x	x	x	x		x										–								–	–		–
	48							x	x	x	x	x	x	x											–							–	–		–
EX	2	x		x											x	x	x	x															–	–	
	3	x	x	x											x	x	x	x															–	–	
	4	x	x	x		x									x	x	x		x														–	–	
	5	x	x	x		xx									x	x	x		x														–	–	

NOTE: Be sure you select type of base and ORDER SEPARATELY for BX, HBX, and HDBX Towers.
For EX Tower your base is included, unless you desire Roof Mount which must be ordered separately.

CAUTION ..... AX hardware is not interchangeable with BX hardware.

MODEL BX TOWER DESIGN ASSUMPTIONS

TOWER MATERIAL SPECIFICATIONS:

LEGS: ASTM A-446 GRADE C STEEL (MINIMUM YIELD POINT - 45,000 PSI)
(GALVANIZED ACCORDING TO ASTM A-525)

BRACES: COLD ROLLED C-1017 STEEL (MINIMUM YIELD POINT - 36,000 PSI)
(GALVANIZED ACCORDING TO ASTM A-525)

LEG SPLICE BOLTS: SAE GRADE 5 STEEL
RIVETS: 2017-T4 ALUMINUM ALLOY

TOWER MEMBER ALLOWABLE DESIGN STRESSES:

NOTE: ALLOWABLE STRESSES BELOW HAVE BEEN INCREASED BY 33⅓% FOR THE WIND LOAD CONDITION.①

LEGS:
COMPRESSION — (STRESS VARIES ACCORDING TO SLENDERNESS RATIO)②
BEARING — 126,000 PSI③
SHEAR — 24,000 PSI④

BRACES:
COMPRESSION — (STRESS VARIES ACCORDING TO SLENDERNESS RATIO)②
BEARING — 100,800 PSI③
SHEAR — 19,330 PSI④

BOLTS:
SHEAR — 29,300 PSI (THREADS EXCLUDED FROM SHEAR PLANE)⑤

RIVETS:
SHEAR — 18,120 PSI⑥
BEARING — 53,400 PSI⑥

① PAR. 3.1.2.1 OF A.I.S.I. "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", 1968 EDITION.
② A.I.S.C. MANUAL OF STEEL CONSTRUCTION, 7TH EDITION, PGS. 5.84 & 5.86.
③ PAR. 4.5.3 OF A.I.S.I. SPECIFICATIONS, 1968 EDITION.
④ A.I.S.C. MANUAL OF STEEL CONSTRUCTION, 7TH EDITION, PG. 5.64.
⑤ PAR. 4.5.4 OF A.I.S.I. SPECIFICATIONS, 1968 EDITION.
⑥ ALUMINUM CONSTRUCTION MANUAL, "SPECIFICATIONS FOR ALUMINUM STRUCTURES", 1967 EDITION.

TOWER SHAPE FACTORS:

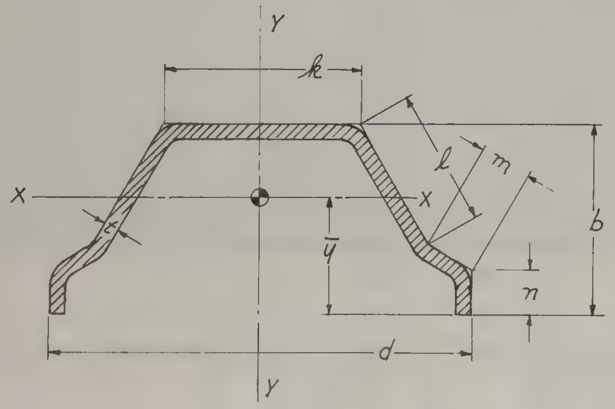
INDIVIDUAL MEMBERS (LEGS, BRACES, TRANSMISSION LINES)

SHAPE FACTOR: 1.00 FOR FLAT ELEMENTS
.67 FOR CYLINDRICAL ELEMENTS

TOWER SECTION:

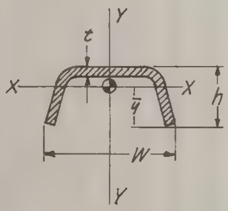
SHAPE FACTOR: 1.50 TIMES THE PROJECTED AREA OF INDIVIDUAL MEMBERS IN ONE FACE.

MODEL BX TOWER SECTION PROPERTIES



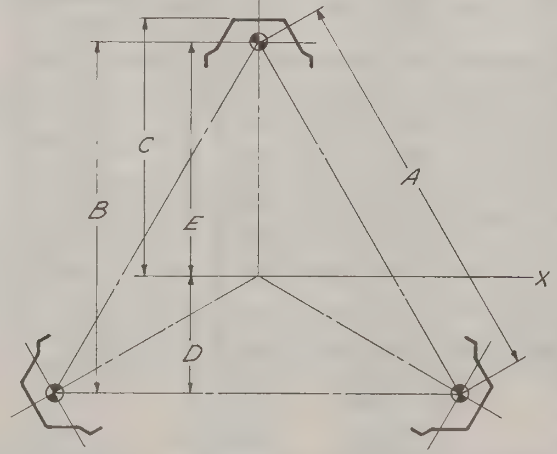
SECTION PROPERTIES OF VERTICAL ELEMENTS

SECT.	t IN.	b IN.	d IN.	k IN.	l IN.	m IN.	n IN.	AREA, IN.^{2}	$\bar{y}$ IN.	I_x IN.^{4}	r_x IN.	I_Y IN.^{4}	r_Y IN.
BX-1	.048	1.1742	2.0984	.7500	1.0134	.1934	.1999	.1637	.6890	.0236	.380	.0746	.675
BX-2	.048	1.1887	2.2145	.8286	1.0198	.2114	.1999	.1698	.7052	.0256	.388	.0862	.712
BX-3	.060	1.2151	2.3544	.9210	1.0298	.2330	.2068	.2228	.7233	.0346	.394	.1260	.752
BX-4	.085	1.2596	2.5441	1.0422	1.0476	.2623	.2212	.3296	.7511	.0548	.408	.2156	.809
BX-5	.1008	1.3058	2.7661	1.1818	1.0704	.2967	.2305	.4151	.7863	.0742	.423	.3172	.874
BX-6	.1008	1.3428	2.9881	1.3214	1.0932	.3311	.2305	.4407	.8160	.0838	.436	.3926	.944
BX-7	.1158	1.3946	3.2399	1.4784	1.1206	.3700	.2391	.5384	.8522	.1106	.453	.5594	1.019
BX-8	.1158	1.5780	3.4916	1.6354	1.1480	.4089	.3794	.6043	.9769	.1540	.505	.7810	1.137



SECTION PROPERTIES OF DIAGONAL ELEMENTS

SECT.	t IN.	h IN.	W IN.	AREA, IN.^{2}	$\bar{y}$ IN.	I_x IN.^{4}	r_x IN.	I_Y IN.^{4}	r_Y IN.
BX-1	.048	.35	.75	.054	.235	.000620	.107	.00330	.247
BX-2	.048	.35	.75	.054	.235	.000620	.107	.00330	.247
BX-3	.048	.35	.75	.054	.235	.000620	.107	.00330	.247
BX-4	.060	.35	.75	.0675	.228	.000732	.104	.00394	.242
BX-5	.075	.46	1.05	.1125	.307	.002164	.139	.01342	.345
BX-6	.075	.46	1.05	.1125	.307	.002164	.139	.01342	.345
BX-7	.075	.46	1.05	.1125	.307	.002164	.139	.01342	.345
BX-8	.075	.46	1.05	.1125	.307	.002164	.139	.01342	.345



SECTION PROPERTIES OF TOWER

SECT.	AREA (3 LEGS) IN.^{2}	A IN.	B IN.	C IN.	D IN.	E IN.	I_x IN.^{4}	r_x IN.	WEIGHT, LBS.
BX-1	.491	9.53	8.25	5.99	2.75	5.50	7.50	3.91	22
BX-2	.509	11.86	10.27	7.33	3.42	6.85	12.03	4.86	23
BX-3	.668	14.20	12.30	8.69	4.10	8.20	22.58	5.81	28
BX-4	.989	16.58	14.35	10.08	4.78	9.57	45.44	6.78	41
BX-5	1.245	19.23	16.65	11.62	5.55	11.10	76.94	7.86	59
BX-6	1.322	21.89	18.96	13.16	6.32	12.64	105.9	8.95	64
BX-7	1.615	24.56	21.27	14.72	7.09	14.18	162.7	10.04	75
BX-8	1.813	27.41	23.73	16.42	7.91	15.82	227.4	11.20	82

DWG. NO. B-760024

MODEL BX TOWER DESIGN DATA

SECT.	PROJECTED AREAS										WIND LOAD PER SECT., LBS. AT WIND PRESSURE OF			ALLOWABLE LOADS AT VERTICAL LEG SPLICES				ALLOWABLE LOADS AT DIAGONAL CONNECTIONS					
	VERTICAL LEGS				DIAGONALS			TOTALS			10 PSF	15 PSF	20 PSF	SPLICE BOLTS		THICK. OF LEG, IN.	ALLOWABLE TENSILE LEG SPLICE CAPACITY LBS.	RIVET DIA., IN.	THICK. OF BRACE, IN.	AREA IN.^{2}		ALLOW. LOAD, LBS.	
	EXPOSED WIDTH (1 LEG) IN.	LENGTH, IN.	EXPOSED AREA (1 LEG) FT.^{2}	EXPOSED AREA (1 FACE) FT.^{2}	WIDTH IN.	TOTAL EXPOSED LENGTH (1 FACE) IN.	EXPOSED AREA (1 FACE) FT.^{2}	TOTAL EXPOSED AREA (1 FACE) FT.^{2}	TOTAL EXPOSED SECTION AREA FT.^{2}					NO.	DIA.					BRG.	SHEAR	BRG.	SHEAR
BX-1	1.73	96	1.15	2.30	.75	173.4	.90	3.20	4.800		48.0	72.0	96.0	2	$\frac{3}{8}$	.048	5630	$\frac{5}{32}$	.048	.0075	.0192	400	348
BX-2	1.79	96	1.19	2.38	.75	190.5	.99	3.37	5.055		50.6	75.8	101.1	2	$\frac{3}{8}$	.048	5810	$\frac{5}{32}$	.048	.0075	.0192	400	348
BX-3	1.87	96	1.25	2.50	.75	209.2	1.09	3.59	5.385		53.9	80.8	107.7	2	$\frac{9}{16}$	.060	7320	$\frac{5}{32}$	.048	.0075	.0192	400	348
BX-4	1.99	96	1.33	2.66	.75	229.0	1.19	3.85	5.775		57.8	86.6	115.5	2	$\frac{9}{16}$	.085	10,910	$\frac{3}{16}$	.060	.0112	.0276	598	500
BX-5	2.12	96	1.41	2.82	1.05	251.6	1.83	4.65	6.975		69.8	104.6	139.5	2	$\frac{9}{16}$	.1008	13,870	$\frac{1}{4}$	.075	.0187	.0491	1000	890
BX-6	2.24	96	1.49	2.98	1.05	276.6	2.02	5.00	7.500		75.0	112.5	150.0	2	$\frac{9}{16}$	.1008	14,880	$\frac{1}{4}$	.075	.0187	.0491	1000	890
BX-7	2.39	96	1.59	3.18	1.05	303.8	2.21	5.39	8.085		80.9	121.3	161.7	3	$\frac{9}{16}$	.1158	18,340	$\frac{1}{4}$	.075	.0187	.0491	1000	890
BX-8	2.65	96	1.77	3.54	1.05	335.6	2.45	5.99	8.985		89.9	134.8	179.7	3	$\frac{9}{16}$	.1158	20,910	$\frac{1}{4}$	.075	.0187	.0491	1000	890

SECT.	ALLOWABLE COMPRESSIVE LOADS													
	VERTICAL LEGS							DIAGONAL BRACES						
	L_v IN.	r_v IN.	$\frac{L_v}{r_v}$	F'_a PSI	F_a PSI	CROSS-SECT. AREA (1 LEG) IN.^{2}	ALLOWABLE LEG LOAD, LBS.	L_D IN.	r_D IN.	$\frac{L'_D}{r_D}$ *	F'_a PSI	F_a PSI	CROSS-SECT. AREA IN.^{2}	ALLOWABLE BRACE LOAD, LBS.
BX-1	$12\frac{1}{2}$	.380	32.9	24,300	32,400	.1637	5300	15.34	.107	71.7	16,250	21,660	.054	1170
BX-2	$12\frac{1}{2}$	.388	32.2	24,380	32,500	.1698	5520	16.78	.107	78.4	15,540	20,720	.054	1120
BX-3	$12\frac{1}{2}$	.394	31.7	24,430	32,570	.2228	7260	18.41	.107	86.0	14,670	19,560	.054	1060
BX-4	$12\frac{1}{2}$	.408	30.6	24,540	32,710	.3296	10,780	20.16	.104	96.9	13,360	17,810	.0675	1200
BX-5	$12\frac{1}{2}$	.423	29.6	24,650	32,870	.4151	13,640	22.22	.139	79.9	15,370	20,490	.1125	2310
BX-6	$12\frac{1}{2}$	.436	28.7	24,740	32,990	.4407	14,540	24.41	.139	87.8	14,560	19,410	.1125	2180
BX-7	$12\frac{1}{2}$	.453	27.6	24,850	33,130	.5384	17,840	26.66	.139	95.9	13,490	17,990	.1125	2020
BX-8	$12\frac{1}{2}$	.505	24.8	25,130	33,510	.6043	20,250	29.19	.139	105.0	12,330	16,440	.1125	1850

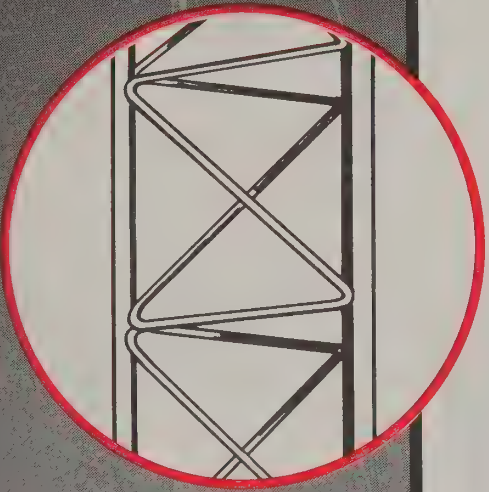
* $L'_D = \frac{1}{2} L_D$

SECT. 5 & 6 RIVET DIA. CHANGED 10-1-77

DWG. NO. B-760025 R1

ROHN NO.45G COMMUNICATION

TOWER



This tower is an 18 inch triangular pattern suitable for heights to 300 feet with proper guying! A true multi-use tower.

DESIGN

ROHN No. 45 tower is designed in an 18 inch equilateral triangular pattern. The three legs of the tower are of heavy, 14 gauge, special quality steel. The cross bracing is the ROHN "zig-zag" design using a continuous, solid steel rod, electric welded to side rails every 15 inches. All sections are 10 feet in length.

USAGE

This tower is suitable for mounting communication antennas or other equipment under normal conditions for heights up to a maximum of 300 feet. See specification sheets for complete guying and wind load information.

CONSTRUCTION

Entire tower is accurately constructed, utilizing precision machines and then electric welded throughout. Workmanship and materials are of the highest quality available and fully conforming to specifications.

FINISH

ROHN No. 45 tower sections are completely hot dip galvanized *after fabrication* to give permanent protection against corrosion. Because sections are galvanized as the last operation, all points of welding and other points of construction are fully covered with molten zinc that tends to seal itself should there ever be any breakage on the surface!

Self-Supporting Heights (in feet) For 45G Tower *

WIND LOAD	Factor of Safety—1.5		Factor of Safety—2.3	
	No Ant.	2 Ft^2	No Ant.	2 Ft^2
10.0 PSF (50 MPH)	90.6	84.0	72.9	66.5
14.4 PSF (60 MPH)	75.9	69.1	61.6	54.5
20.0 PSF (70.7 MPH)	64.2	57.8	51.8	45.4**

*See Installation Instructions

**Recommended

Do not install towers or masts near power lines. All towers or masts should be installed out of falling distance of power lines since every electrical and telephone wire should be considered dangerous.

UNR-Rohn recommends anti-climb sections on all towers to prevent unauthorized persons from climbing towers.

All towers and masts should be installed and dismantled by experienced and trained personnel.

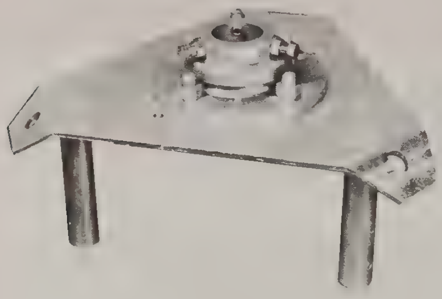
All types of antenna installations should be thoroughly inspected by qualified personnel and remarked wih hazard and warning labels at least twice a year to insure safety and proper performance.

All antenna installations must be grounded per local or national codes.

The mixing of so-called interchangeable copies of Rohn towers with Rohn towers is dangerous and voids all engineering or warranty data supplied by UNR-Rohn. Materials used by the so-called copies are not the same quality and have not been tested or engineered by UNR-Rohn to conform to the same quality standards. Mixing of non-Rohn items may endanger the lives of your customers and cause serious tower failures and financial misfortune for all concerned.

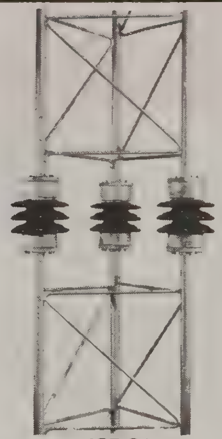
HOT DIP GALVANIZED

ROHN® NO. 45G TOWER ACCESSORIES

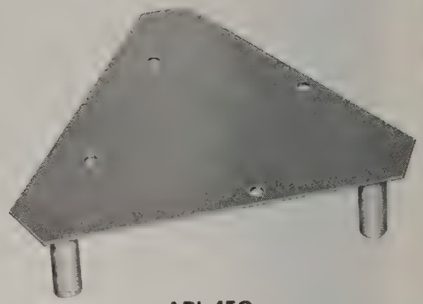


BPL45G WITH TB3 THRUST BEARING

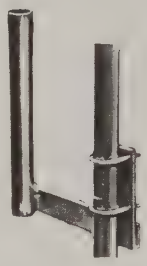
NEW TB4 THRUST BEARING W/ 3" O.D.



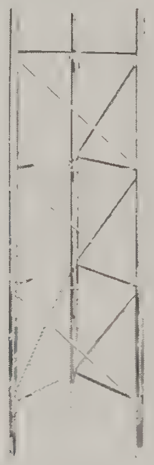
45RG*
10′ INSULATOR SECTION



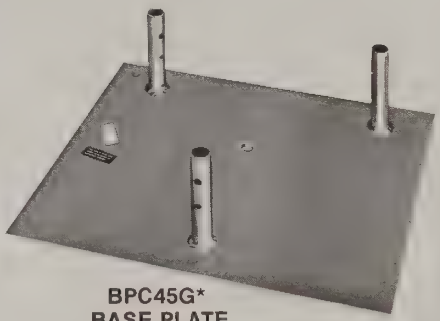
APL 45G
BEACON PLATE



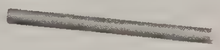
RP45G
ROTOR POST



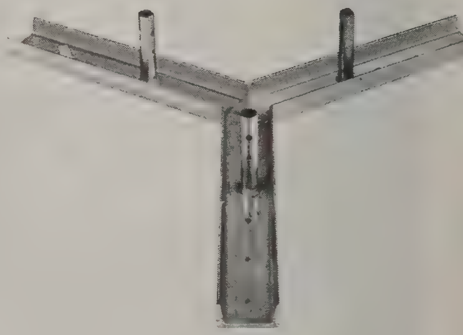
SB45G
5′ SHORT BASE
(for concrete)



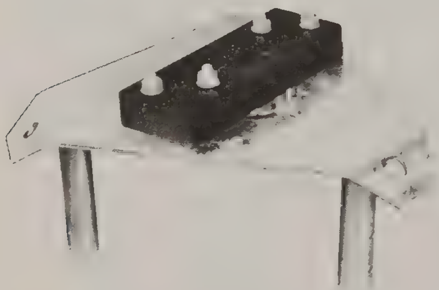
BPC45G*
BASE PLATE
(for concrete)



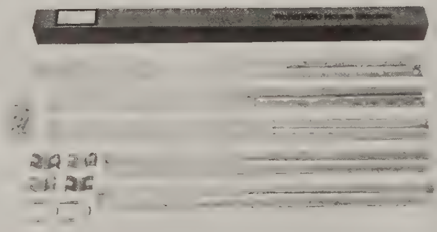
3/4″ X 12″ PP
PIER PIN



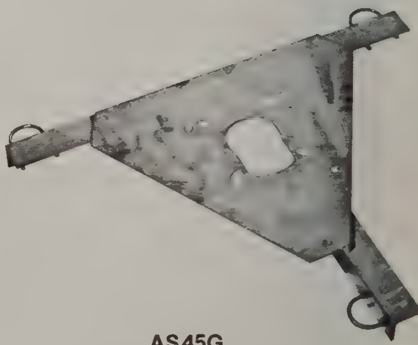
FR45G*
FLAT ROOF MOUNT



AB
AMATEUR BEARING
(for use with 45AG4 Top Section and BPL45G)



HBU
UNIVERSAL HOUSE BRACKET



AS45G
ACCESSORY SHELF

**Note: Towers mounted on these bases must be bracketed or guyed.*

- ***All ROHN No. 45G Tower Accessories are Hot Dip Galvanized after fabrication.***

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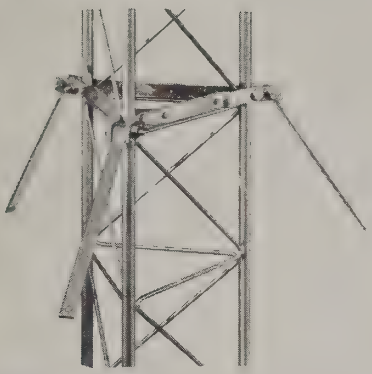
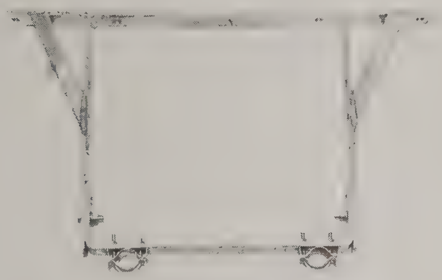
ROHN® NO. 45G TOWER ACCESSORIES



GA45G
GUY ASSEMBLY
(bracket w/torque bars)

GB45G
(guy bracket only)

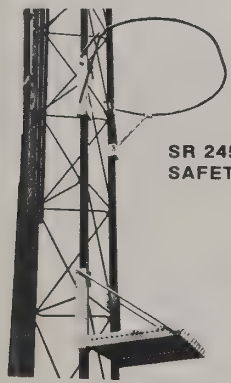


HB45AG
ADJUSTABLE HOUSE BRACKET
(up to 15" extension)

HB45BG (0 to 24") not shown
HB45CG (0 to 36") not shown

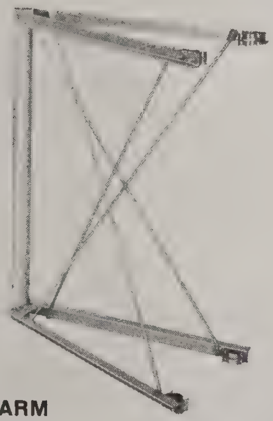
TB50
1-1/4" I.D. X 2" O.D.
TOWER BUSHING
(for use in 45AG Top Section)

TB75 (not shown)
1-1/2" I.D. X 2" O.D.
(for use in 45AG Top Section)

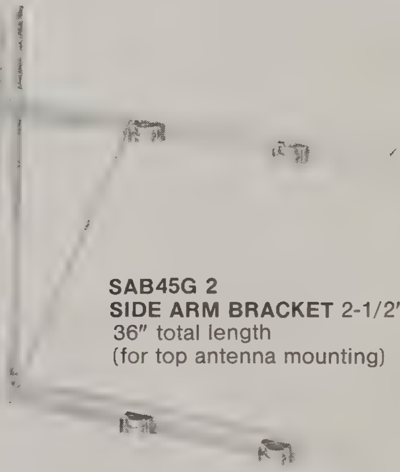


SR 245
SAFETY RING

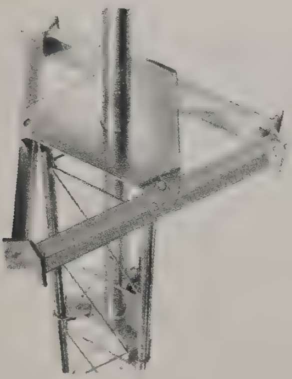
WP45G
WORK PLATFORM
For use on No. 45G tower.



SIDE ARM
SA45G 224 (24" extension 2-1/4" O.D.)
SA45G 524 (24" extension, 2-9/16" I.D.) (not shown)



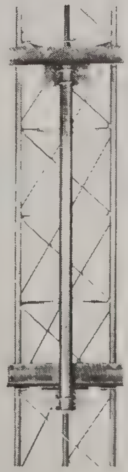
SAB45G 2
SIDE ARM BRACKET 2-1/2" O.D.
36" total length
(for top antenna mounting)

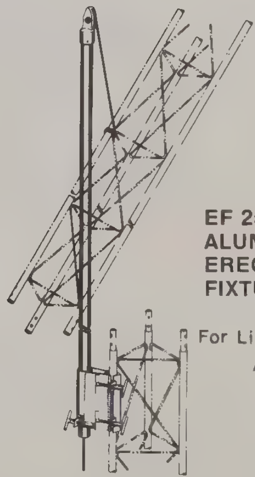


TA45 TORQUE ARM STABILIZER ASSEMBLY
45TDM-2 TOP DISH MT.

DM45G 2
FACE DISH MOUNT
(2-3/8" O.D. pipe
5' long)

DM45 4
(4-1/2" O.D. pipe
5' long
not shown)





EF 25 45
ALUMINUM
ERECTION
FIXTURE

For Lifting 1—10' Section At A Time

- *All ROHN No. 45G Tower Accessories are Hot Dip Galvanized after fabrication.*

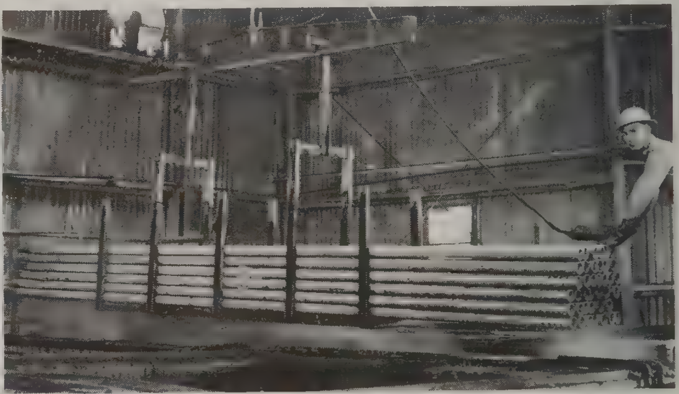
ROHN® IN-HOUSE
"Quality Control" Galvanizing
means extra value for you!

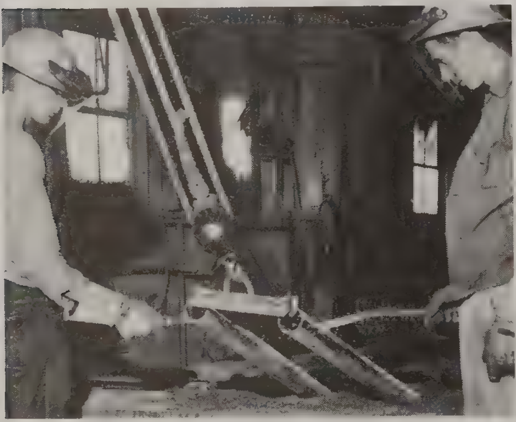
CORROSION RESISTANT: Hot-dipped zinc galvanizing means that ROHN Products are absolutely corrosion-resistant. A minimum molten zinc coating of *2 ounces for every square foot of surface fuses permanently* to the metal, becoming an actual part of the steel so it cannot be separated. Also the tubular steel used in ROHN Towers is coated both *inside* and *outside* to give absolute protection against deterioration from condensation and moisture.

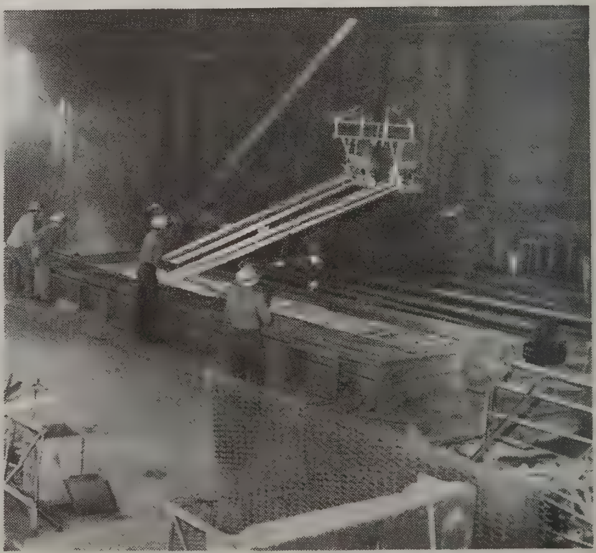
CHIP AND SCRATCH PROOF: If a galvanized surface is scratched or chipped, the surrounding zinc actually "heals the wound" and continues to seal out all corrosive elements! Nothing but hot-dipped galvanizing does this.

PERMANENT DURABILITY: Galvanizing means permanent protection and attractive appearance that cannot be matched by any other type of coating. With ROHN Products, you receive the *very finest* available—anywhere. All Hot-Dipped Galvanizing is done in the ROHN Galvanizing Plant according to ROHN Rigid Controls for Highest Quality.

Shown here are the huge pickling vats at ROHN where towers and other ROHN Products are prepared for galvanizing. Modern, high capacity equipment, skilled, experienced operators and finest raw materials keep ROHN quality high.







ROHN tower sections after fabrication are completely immersed in the molten zinc where all welds, points of construction, inner parts, including the interior of the tubing itself — is heavily coated with zinc.

UNR-Rohn
Division of UNR, Inc.
6718 West Plank Road, P.O. Box 2000
Peoria, Illinois 61656

SHEET D-2072
(Replaces D-2026)

April 1, 1983

#45 TOWER

PART NUMBER		WT.
45G	10' tower section	70
45AG	9' top section	52
/ 45AG1 /	Top section. Mast support tube is 1-1/4" galv. pipe, threaded on top and projecting 12" above apex of side rails.	60
45AG2	Top section. Mast support tube is 2-3/8" O.D. tubing, 36" total length, extending 18" above apex of side rails.	60
45AG3	Top section. Mast support tube is 2-1/4" O.D. tubing, extending 12" above apex of side rails. A 2" O.D. antenna stub will fit snugly inside support tube.	60
45AG4	7' top section. Upper end terminates in flat, triangular plate with 3-1/8" dia. hole in center.	52
/ 45AG5 /	Top section. Mast support tube is 2-3/4" O.D. and 2-9/16" I.D. tubing, 18" total length.	60
45TG	10' tapered base section	90
*45RG	10' insulator section for 45G tower (includes 3 #10470 insulators)	104
45ACL	10' anti-climb section	165
/ 45ACL3 /	3 anti-climb metal sheets for attaching to tower section	100
5545G	20' adapter section for joining 45G and 55G sections	160
45JBK	Joint bolt kit	3/4
APL45G	Beacon plate	17
SB45G	5' short base section for concrete	35
*BPC45G	Concrete base plate	39
3/4X12PP	Pier pin (for BPC45G or 45TG - one required)	1
*BPH45G	Hinged base plate for concrete	53
1/2X12BB	Concrete base bolt with double nuts (for BPH45G - four required)	1/2
*FR45G	Flat roof mount	34
AS455G	Accessory shelf. Plate for mounting Ham "M" rotor or mast bearing. Mounts inside of tower. When using Model 400 rotor, plate must be redrilled.	8
GA45G	Guy assembly (bracket with torque bars)	20
GB45G	Guy bracket only	16
HBU	Universal house bracket (6" to 30")	15
TB50	Tower bushing for 45AG top (1-1/4" I.D. x 2" O.D.)	1/2
TB75	Tower bushing for 45AG top (1-1/2" I.D. x 2" O.D.)	1/2
AB	Amateur bearing for use with 45AG4 top (2" x 4" x 10" hardware)	1
TB3	Heavy duty thrust bearing, recommended for 2" O.D. tubing	2-1/2
TB4	Heavy duty thrust bearing, recommended for 3" O.D. tubing	3
BPL45G	Top plate with guy lugs for mounting AB, TB3 or TB4 bearing	17
SA253UA	Side arm assembly, 2-1/2' to 3' extension, with 2-1/4" support tube	28
SAB45G2	Discontinued (Replaced by SA253UA)	15
SA45G224	Discontinued (Replaced by SA253UA)	22
**TA45	Torque arm stabilizer assembly	56
/**45TDM2 /	Top dish mount w/2" O.D. mast (extends 3' above top plate)	60
/**45TDM2SP /	Top dish mount w/2" standard pipe (extends 5' above top plate)	80
/**45TDM2EH /	Top dish mount w/2" EH pipe (extends 5' above top plate)	85
/**45TDM25SP /	Top dish mount w/2-1/2" standard pipe (extends 5' above top plate)	90
/**45TDM25EH /	Top dish mount w/2-1/2" EH pipe (extends 5' above top plate)	110
DM45G2	Face dish mount w/2" (2-3/8" O.D.) 5' long standard pipe	52
DM454	Face dish mount w/4" (4-1/2" O.D.) 5' long standard pipe	88
WP45G	Work platform	14
SR245	Safety ring	8
EF2545	Aluminum erection fixture, 12' long (fits all models with 1-1/4" side rails) (use to raise one 10' section at a time)	18
P2545	Pole only for EF2545	10
H2545	Head only for EF2545	8

*Towers mounted on these bases must be bracketed or guyed.

**This item is not to be used without proper design consideration.

/ Available by special order only. Allow 60 days for delivery. /

NOTE: The price on #45 and #5545G sections will be higher on shipments to the following states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Refer to alphabetical/numerical price list for current prices.

SHEET D-1750
(Replaces D-1503)

August 1, 1980

REFERENCE SHEET & INSTALLATION INFORMATION

#45 BRACKETED TOWERS, NON-GUYED

INSTALLATION: Select a tower location sufficiently clear and out of falling distance of power lines since every electrical and telephone wire should be considered dangerous. The only safe distance from power lines is at least twice the height of tower, mast and antenna combined. Tower should be installed by experienced and trained personnel. All antenna installations must be grounded per local or national codes.

BASE: The size of the concrete base for a 50' #45 tower, with a house bracket 12' aboveground, is 3' deep by 2' square. For cases of loose soil, etc., the base must be larger. Spread about 2" of gravel in bottom of hole prior to setting base assembly. The base assembly should be attached to the first 10' section prior to setting into gravel. After setting base assembly on gravel, fill another 3" with gravel around legs of base. This allows the tower base legs to extend the required amount below the base of the concrete, thus allowing for drainage of moisture into the gravel. The base assembly and first 10' section should be leveled, plumbed, and temporarily guyed or braced while pouring the concrete. This will insure a plumb tower after installation. Check tower to assure it is plumb and level after pouring concrete. Do not pull base up into the concrete to level it and do not drive it hard into ground as this plugs leg holes and prevents moisture drainage. Crown the top of the concrete slightly to prevent water accumulation. Do not use drive rods as a base for tower when set in concrete.

HEIGHT OF TOWER & BRACKET USES: House brackets must be used and must be mounted at least 12' aboveground to be effective. The #45 tower should not extend more than 45' above a house bracket. (Note: Two house brackets are to be used, equally spaced, on the 80', 90', and 100' towers.) To secure the house bracket, use lag screws no smaller than 3/8" x 2". A special effort should be made to locate the house bracket such that the lag screws go through the siding into a stud. Brackets fastened to the siding only will not hold in a high wind. Tighten the house bracket U-bolts only enough to prevent looseness. Do not dent or flatten the tower upright members be excessively tightening U-bolts.

BOLTS: Installers are urged to use a 10" lining-up punch that tapers from about 1/2" to 5/32" diameter over a 6-1/2" length. If bolts cannot be pushed through the holes with the heel of the hand while rocking the tower, do not hammer them through. Carefully drive the punch into the hole just enough to slightly enlarge it. The leg bolt hole should be just large enough to admit the bolt. Never drill out the holes. Be sure to tighten all leg bolts until they partially flatten the sleeves, causing the sleeves to actually grip the legs inside. Always replace stripped bolts. Upon completing an installation, there should be no vertical movement between tower sections at the joint when the tower is deliberately swayed from side to side.

MISCELLANEOUS: Installation is greatly hastened and simplified by the use of an erection fixture. Do not use it to lift more than the weight of one tower section at a time. Anti-climb sections are recommended on all towers to prevent unauthorized persons from climbing tower.

CAUTION ... Be sure hinge bolts on hinged type accessories are loosened before attempting to hinge tower over. Hinge up no more than 45' of #45 tower only. All hinged type bases are recommended to be used to raise tower only without antenna. When raising and lowering tower on any type of hinge base or hinge section, the loads applied for hinging the tower must be applied equally on both sides of tower in order to reduce the possibility of twist on tower and hinges at the base. Special care must be taken to avoid the use of raising and lowering methods which may cause damage to tower or hinges. Hinge bases and roof mounted towers should only be installed by professional and experienced installers.

All information is based upon antennas with not more than 2 square feet of area in a 20 psf (70 mph) wind load and a safety factor, with antenna installed at tower apex.

Dismantling of any tower should be done by professional and experienced installers a section at a time with the use of an erection fixture.

See Chart B-691119 for more information on non-guyed towers.

NOTE: All types of antenna installations should be thoroughly inspected by qualified personnel at least twice a year and remarked with hazard and warning labels to insure safety and proper performance.

PART NUMBER	
45G030BRKT	30' Complete Bracketed Tower
45G040BRKT	40' Complete Bracketed Tower
45G050BRKT	50' Complete Bracketed Tower
45G060BRKT	60' Complete Bracketed Tower
45G070BRKT	70' Complete Bracketed Tower
45G080BRKT	80' Complete Bracketed Tower
45G090BRKT	90' Complete Bracketed Tower
45G100BRKT	100' Complete Bracketed Tower

Refer to alphabetical/numerical price list for Reference Sheet Prices on Completed #45G Bracketed Towers.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

October 1, 1981

UNR-Rohn

Installation Information

Bracketed #45 Tower, Non-Guyed

SITE SELECTION: Select a tower location sufficiently clear and out of falling distance of power lines since every electrical and telephone wire should be considered dangerous. The only safe distance from power lines is at least twice the height of tower, mast, and antenna combined. Tower should be installed and dismantled by experienced and trained personnel. All antenna installations must be grounded per local or national codes.

BASE: The size of the concrete base for a 50' #45 tower, with a house bracket 12' aboveground, is 3' deep by 2' square. For cases of loose soil, etc., the base must be larger. Spread about 2" of gravel in bottom of hole prior to setting base assembly. The base assembly should be attached to the first 10' section prior to setting into gravel. After setting base assembly on gravel, fill another 3" with gravel around legs of base. This allows the tower base legs to extend the required amount below the base of the concrete, thus allowing for drainage of moisture into the gravel. The base assembly and first 10' section should be leveled, plumbed, and temporarily guyed or braced while pouring the concrete. This will insure a plumb tower after installation. Check tower to assure it is plumb and level after pouring concrete. Do not pull base up into the concrete to level it and do not drive it hard into ground as this plugs leg holes and prevents moisture drainage. Crown the top of the concrete slightly to prevent water accumulation.

HEIGHT OF TOWER & BRACKET USES: House brackets must be used and should be mounted at least 12' aboveground to be effective. The #45 tower should not extend more than 45' above a house bracket. (Note: Two house brackets are to be used, equally spaced, on the 80', 90', and 100' towers.) To secure the house bracket, use lag screws no smaller than 3/8" x 2". A special effort should be made to locate the house bracket such that the lag screws go through the siding into a stud. Brackets fastened to the siding only will not hold in a high wind. Tighten the house bracket U-bolts only enough to prevent looseness. Do not dent or flatten the tower upright members by excessively tightening U-bolts.

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MISCELLANEOUS: Installation is greatly hastened and simplified with the use of an erection fixture. Do not use it to lift more than the weight of one tower section at a time. Anti-climb sections are recommended on all towers to prevent unauthorized persons from climbing tower.

CAUTION ... Be sure hinge bolts on hinged type accessories are loosened before attempting to hinge tower over. Hinge up no more than 45' of #45 tower only. All hinged type bases are recommended to be used to raise tower only without antenna. When raising and lowering tower on any hinged type base or hinge section, the loads applied for hinging the tower must be applied equally on both sides of the tower in order to reduce the possibility of twist on tower and hinges at the base. Special care must be taken to avoid the use of raising and lowering methods which may cause damage to tower or hinges. Hinged bases and roof mounted towers should only be installed and dismantled by professional and experienced installers.

All types of antenna installations should be thoroughly inspected by qualified personnel at least twice a year and remarked with hazard and warning labels to insure safety and proper performance.

Dismantling of any tower should be done by professional and experienced installers a section at a time with the use of an erection fixture.

All information is based upon average antennas, with no more than 2 square feet of area in a 20 psf (70 mph) wind load and a safety factor, with antenna installed at tower apex.

THESE ARE FACTORY TESTED INSTRUCTIONS. PLEASE FOLLOW CAREFULLY.

Copyright 1981 by UNR-Rohn.

"WARNING: INSTALLATION OR DISMANTLING OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS. FOR YOUR SAFETY, FOLLOW THE CATALOG DIRECTIONS."

INSTALLATION AND DISMANTLING INSTRUCTIONS -- YOU, YOUR ANTENNA, AND SAFETY

Each year hundreds of people are killed, mutilated, or receive severe permanent injuries when attempting to install or dismantle an antenna. In many of these cases, the victim was aware of the dangers of electrocution and failure but did not take adequate steps to avoid the hazard.

For your safety and to help you achieve a good installation, please READ and FOLLOW the safety precautions below. THEY MAY SAVE YOUR LIFE!

1. If you are installing or dismantling an antenna for the first time, please, for your own safety as well as others, seek PROFESSIONAL ASSISTANCE. Consult your dealer. He can explain which mounting or dismantling method to use for the size and type antenna you are about to install or dismantle.

2. Select your installation site with safety, as well as performance, in mind. (See information on Site Selection.) REMEMBER: POWER LINES AND PHONE LINES LOOK ALIKE. FOR YOUR SAFETY, ASSUME THAT ANY OVERHEAD LINES CAN KILL YOU.

3. Call your power company. Tell them your plans and ask them to look at your site. This is little inconvenience, considering YOUR LIFE IS AT STAKE.

4. Before you begin, plan your installation or dismantling procedure carefully. Successful installation or dismantling of a mast or tower is largely a matter of coordination. Each person should be assigned to a specific task and should know what to do and when to do it. One person should be designated as the "boss" to call out instructions and watch for signs of trouble.

5. When installing or dismantling your antenna, REMEMBER: DO NOT use a metal ladder. DO NOT work on a wet or windy day or if a thunderstorm is approaching. DO dress properly -- shoes with rubber soles and heels, rubber gloves, long sleeve shirt or jacket.

6. If the assembly starts to drop, get away from it and let it fall. REMEMBER: The antenna, mast, cable, and metal guy wires are all excellent conductors of electrical current. Even the slightest touch of any of these parts to a power line completes an electrical path through the antenna and the installer -- THAT'S YOU!

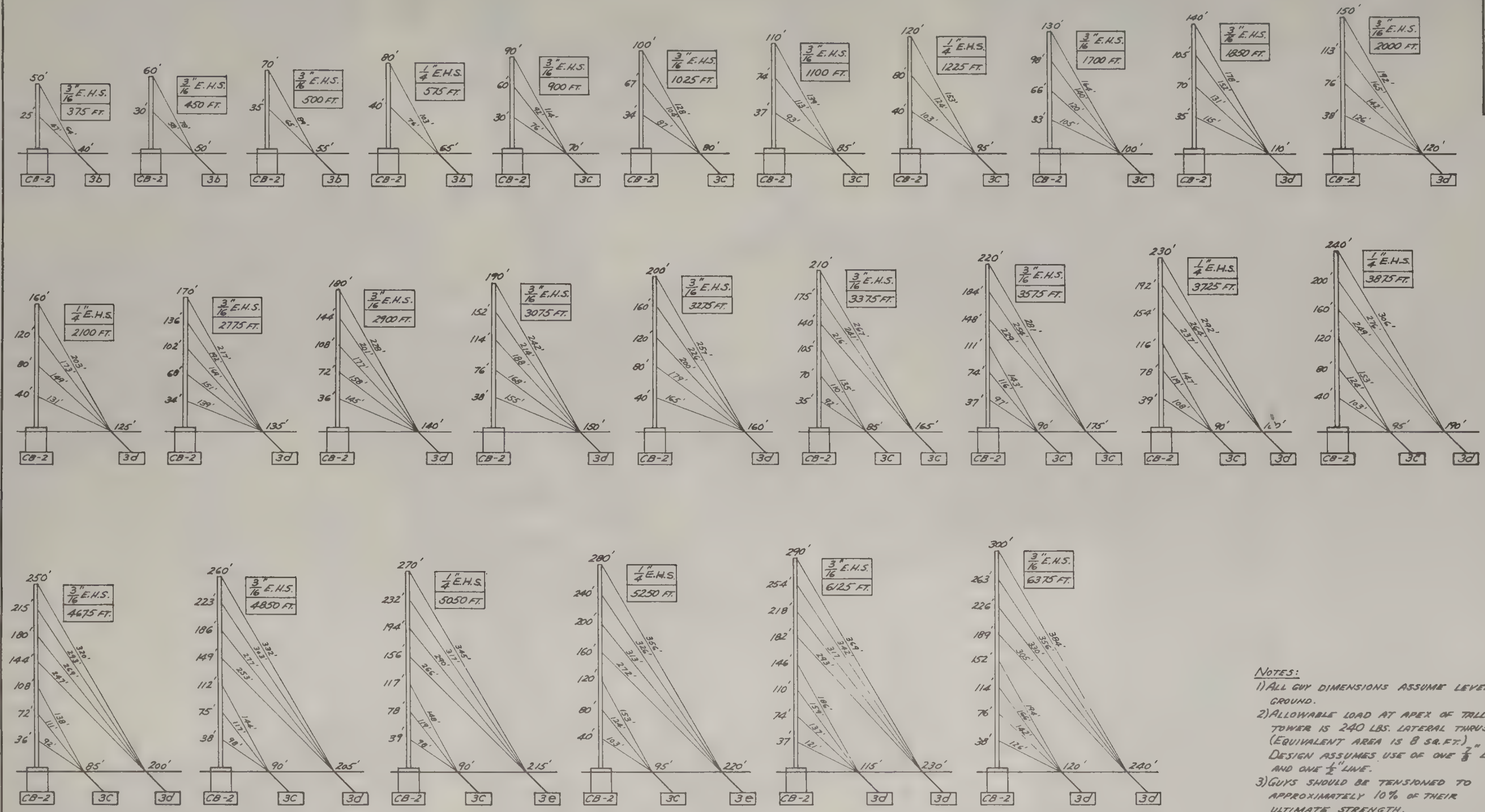
7. If any part of the antenna system should contact a power line -- DON'T TOUCH IT OR TRY TO REMOVE IT YOURSELF. CALL YOUR LOCAL POWER COMPANY. They will remove it safely.

8. If an electrical accident should occur -- DON'T grab hold of the person in contact with the power line or you too will be electrocuted. Use a DRY board, stick or rope to push or pull the victim away from the antenna. If the victim has stopped breathing, administer artificial respiration -- and stay with it. Have someone call for medical help.

SITE SELECTION: Before attempting to install your antenna, think where you can best place your antenna for safety and performance. To determine a safe distance from wires, power lines, and trees: 1) Measure the height of your antenna; 2) Add this length to the length of your tower or mast; and then, 3) Double this total for the minimum recommended safe distance.

If you are unable to maintain this safe distance, STOP! GET PROFESSIONAL HELP. Generally, the higher the antenna is aboveground, the better it performs. Good practice is to install your antenna above the roof line and away from power lines and obstructions. Remember that the FCC limits your CB antenna height. If possible, find a mounting place close to your set, where the antenna wire can take a short, vertical drop on the outside of the house for entry through a wall or window near the set. Your dealer carries a complete line of installation hardware.

C-640606 -R2



NOTES:

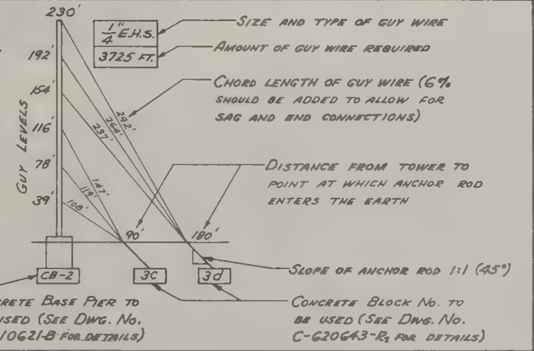
1) ALL GUY DIMENSIONS ASSUME LEVEL GROUND.

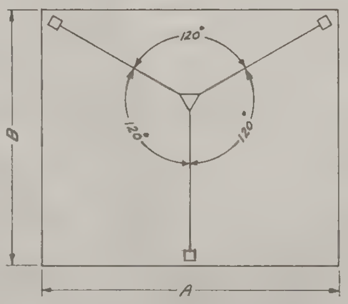
2) ALLOWABLE LOAD AT APEX OF TALLEST TOWER IS 240 LBS. LATERAL THRUST. (EQUIVALENT AREA IS 8 SQ. FT.) DESIGN ASSUMES USE OF ONE $\frac{7}{8}$" LINE AND ONE $\frac{1}{2}$" LINE.

3) GUYS SHOULD BE TENSIONED TO APPROXIMATELY 10% OF THEIR ULTIMATE STRENGTH.

4) ALL TOWERS ARE DESIGNED ACCORDING TO E.I.A. SPECIFICATIONS.

EXPLANATION OF CHART


230'
192'
154'
116'
78'
39'
GUY LEVELS
$\frac{1}{4}$" E.H.S.
3725 FT.
292'
264'
237'
147'
119'
108'
90'
180'
CB-2
3C
3d
SIZE AND TYPE OF GUY WIRE
AMOUNT OF GUY WIRE REQUIRED
CHORD LENGTH OF GUY WIRE (6% SHOULD BE ADDED TO ALLOW FOR SAG AND END CONNECTIONS)
DISTANCE FROM TOWER TO POINT AT WHICH ANCHOR ROD ENTERS THE EARTH
SLOPE OF ANCHOR ROD 1:1 (45°)
CONCRETE BASE PIER TO BE USED (SEE DWG. NO. C-610621-B FOR DETAILS)
CONCRETE BLOCK NO. TO BE USED (SEE DWG. NO. C-620643-R1 FOR DETAILS)



FOR SPACE REQUIREMENT REFER TO DWG. NO. C-640531

	ADDED EIA DESIGNATION	R2	2-17-76	WR
REVISIONS	UPDATED DRAWING	R1	111870	$\$$D
DRAWN AED		TITLE		
CHECKED ck	WIND LOAD = EIA ZONE "A"	GUYING DETAILS FOR MODEL 45 TOWER		
APPROVED RAK	0-300 = 30PSF			
DATE 6-18-64	ROHN MANUFACTURING PEORIA, ILLINOIS	DRAWING NO.		
SCALE NONE		C-640606	R2	

ILLINOIS B/P 1066-H

PARTS LIST P-423
(Replaces P-319)

May 1, 1983

PARTS LIST #45G GUYED TOWER

Zone "A" Wind Load

8 Sq. Ft. of Allowable Load

Tower Height	45G	45AG2	BPC45G with 3/4"x12" PP	APL45G and SA253UA	GA45G	G.W. 3/16" EHS	G.W. 1/4" EHS	C.C.F. 3/16"	C.C.F. 1/4"	TH. 1/4"	T.B. 3/8"x6" E&E	T.B. 1/2"x12" E&E	GAC 253	GAC 255
50'	4	1	1		2	375'		36		12	6		3	
60'	5	1	1		2	450'		36		12	6		3	
70'	6	1	1		2	500'		36		12	6		3	
80'	7	1	1		2		600'		36	12		6	3	
90'	8	1	1		3	900'		54		18	9		3	
100'	9	1	1		3	1100'		54		18	9		3	
110'	10	1	1		3	1150'		54		18	9		3	
120'	11	1	1		3		1225'		54	18		9	3	
130'	12	1	1		4	1700'		72		24	12			3
140'	13	1	1		4	1850'		72		24	12			3
150'	14	1	1		4	2000'		72		24	12			3
160'	16		1	1	4		2150'		72	24		12		3
170'	17		1	1	5	2775'		90		30	15			3
180'	18		1	1	5	2900'		90		30	15			3
190'	19		1	1	5	3175'		90		30	15			3
200'	20		1	1	5	3275'		90		30	15			3
210'	21		1	1	6	3375'		108		36	18		6	
220'	22		1	1	6	3575'		108		36	18		6	
230'	23		1	1	6		3725'		108	36		18	6	
240'	24		1	1	6		3875'		108	36		18	6	
250'	25		1	1	7	4675'		126		42	21		3	3
260'	26		1	1	7	4850'		126		42	21		3	3
270'	27		1	1	7		5150'		126	42		21	3	3
280'	28		1	1	7		5250'		126	42		21	3	3
290'	29		1	1	8	6150'		144		48	24			6
300'	30		1	1	8	6375'		144		48	24			6

Items shown above are necessary for complete "ground" guyed towers.

For "roof" towers a flat roof mount (FR45G) is substituted for the concrete base plate (BPC45G) and wall anchors (GAWP25) are substituted for the concrete anchors (GAC25).

When ordering specify "roof" or "ground".

Anchor grounding (AGK) and base grounding (BGK) of all towers are recommended by EIA and Rohn. However, grounding is not included in tower prices. See appropriate price list for grounding material.

All types of antenna installations should be thoroughly inspected by qualified personnel and remarked with hazard and warning labels at least twice a year to insure safety and proper performance.

new

Rohn

equipment shelters

Rohn Shelters.

Introducing the New Rohn Fiberglass Equipment Shelters. Designed and built with superior craftsmanship and highest quality materials to withstand harsh environmental conditions while protecting your sensitive equipment.

FIBERGLASS LAMINATED CONSTRUCTION

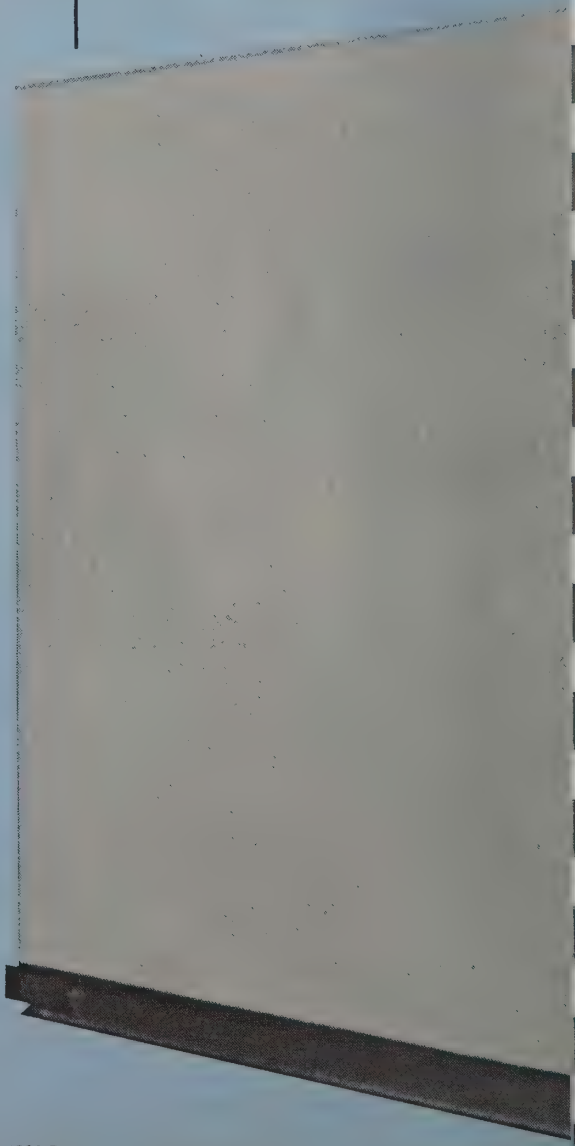
- Finest grade construction materials.
- Best insulation available.
- Materials are selected for their fire retardant properties.
- An exterior skin of pigmented polyester resin and chopped fiberglass.
- Entire exterior is finished with high quality pigmented "gel coat" which is stabilized for ultra-violet protection.
- Numerous equipment options available.
- Special services and turn-key installation on request.

STANDARD SIZES AVAILABLE

Width (outside) 8′ 0″, 10′ 0″, 12′ 0″
Length (outside) 8′ to 20′ in 2′ increments
Height (inside) 8′ 0″ from finished floor to ceiling
Height (outside) 9′ 3″ ±

Some sizes available from stock. Contact Rohn for further details.

Special sizes available upon request.



Rohn Equipment Shelters are air, dust and watertight. They come to you completely prefabricated and designed for minimal maintenance.

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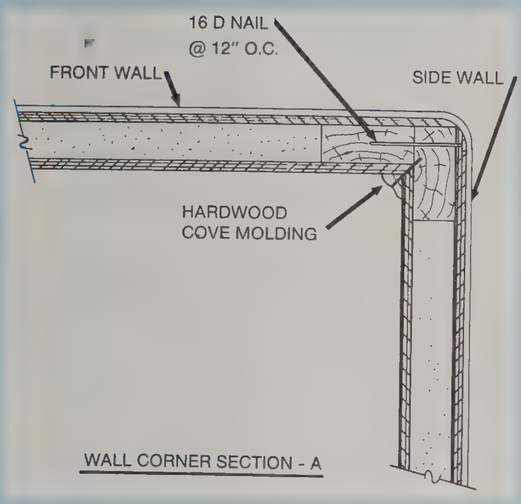
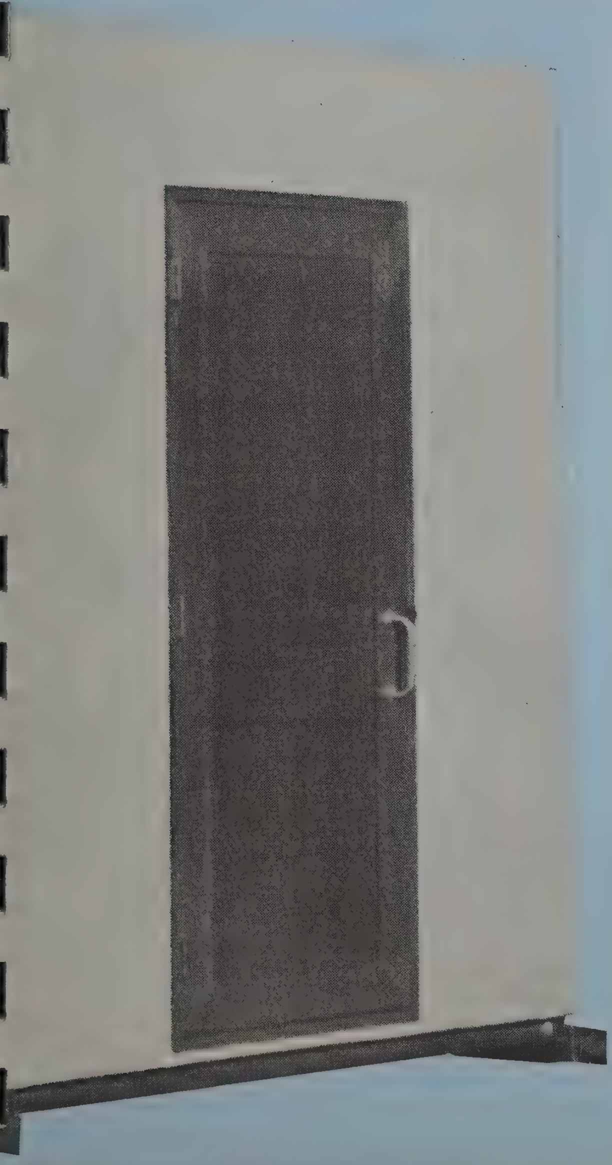
built to last!

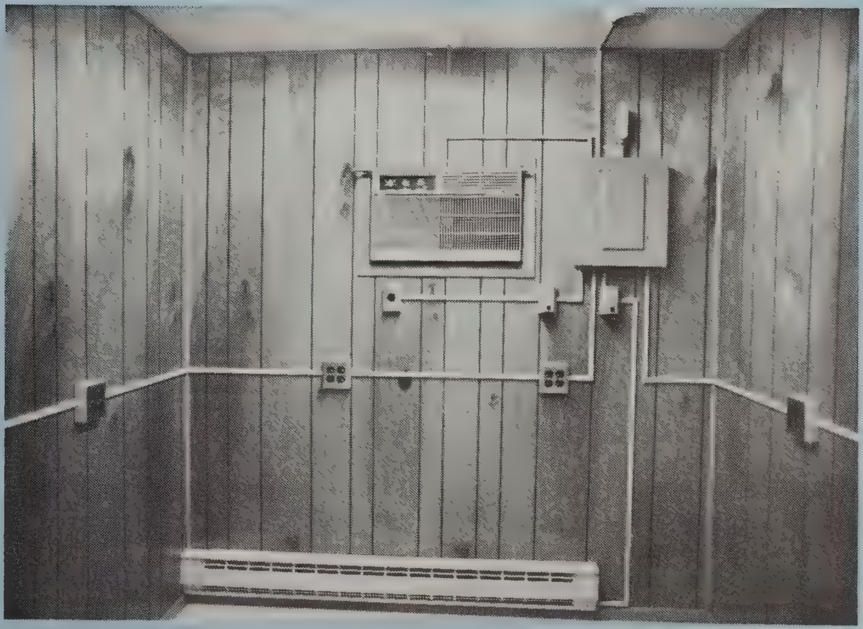
QUALITY FEATURES BY ROHN

Rohn Standard Shelters have a 3′ X 7′ aluminum, insulated door. Our standard electrical package includes a 120/240V, 100 AMP main entrance box (20 position), with 12 circuit breakers. Wiring is installed through surface mounted "Wire-mold" raceway (one two-gang duplex receptacle each 4 feet, on 3 walls). Switched fluorescent lighting fixtures installed within 2′ of shelter ceiling length.

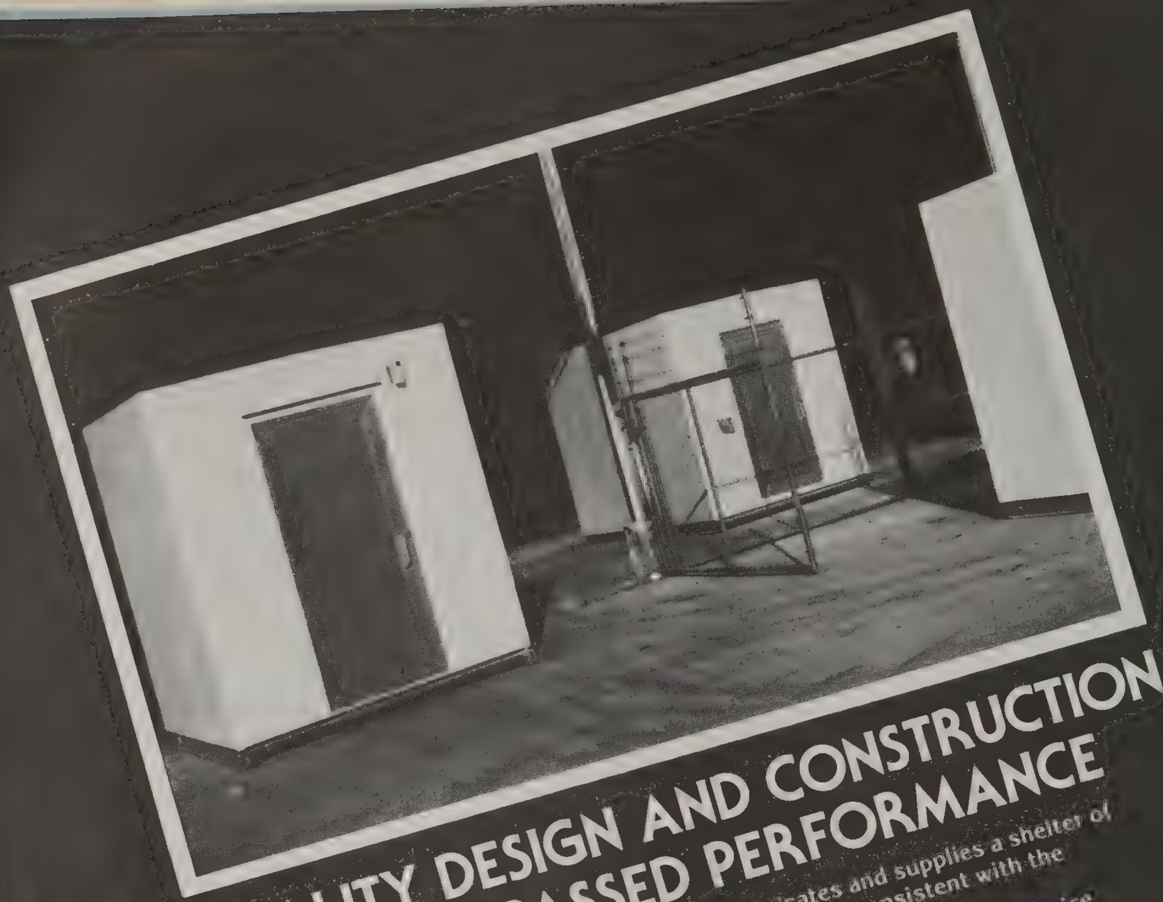


- Insulation is foil faced, flame retardant, non-toxic, fiber reinforced polyisocyanurate foam blocks, with an R-value of 7.2 per inch of thickness.
- Skid is Hot Dip Galvanized after fabrication and constructed of structural steel members for superior strength. Heavy duty bolt-on lift brackets at each corner for easy maneuvering.





Rohn has available an unlimited variety of electrical packages constructed to the exact need of the user.



QUALITY DESIGN AND CONSTRUCTION FOR UNSURPASSED PERFORMANCE

Loading Design
Floor — 400 lbs./sq. ft. Dead Load
Roof — 100 lbs./sq. ft. Dead Load
Wind — 160 MPH (and horizontal direction)

Rohn fabricates and supplies a shelter of the high quality consistent with the Rohn name.

Write for full specifications and price quotes on Rohn Shelters.

Rohn

equipment shelters

Rohn
6718 West Plank Road
P.O. Box 2000
Peoria, Illinois 61656

TWX 910 652 0646
USA

FORM NO. 82 1911

SHEET D-2086
(Replaces D-1681)

June 1, 1983

ACCESSORIES

GUY WIRE GALVANIZED 7-STRAND - PREFORMED

PART NUMBER		WT.
*3/16EHS	3/16" guy wire - extra high strength 3,990 lbs. breaking strength	68/MFT
*1/4EHS	1/4" guy wire - extra high strength 6,650 lbs. breaking strength	120/MFT
5/16EHS	5/16" guy wire - extra high strength 11,200 lbs. breaking strength	205/MFT
3/8EHS	3/8" guy wire - extra high strength 15,400 lbs. breaking strength	273/MFT
7/16EHS	7/16" guy wire - extra high strength 20,800 lbs. breaking strength	399/MFT
1/2EHS	1/2" guy wire - extra high strength 26,900 lbs. breaking strength	517/MFT
9/16EHS	9/16" guy wire - extra high strength 35,000 lbs. breaking strength	671/MFT
5/8EHS	5/8" guy wire - extra high strength 42,400 lbs. breaking strength	813/MFT

*Available in 500' or 1,000' coils. Order accordingly.

GUY WIRE GALVANIZED 19-STRAND - PREFORMED

PART NUMBER		WT.
3/4EHS	3/4" guy wire - extra high strength 58,300 lbs. breaking strength	1155/MFT
7/8EHS	7/8" guy wire - extra high strength 79,700 lbs. breaking strength	1581/MFT
1BS	1" bridgestrand 122,000 lbs. breaking strength	2100/MFT

SPECIAL GALVANIZED TURNBUCKLES (HIGH STRENGTH)

PART NUMBER			WT.
3/8TBE&E	3/8" x 6" turnbuckle	eye & eye	1
3/8TBE&J	6,000 lbs. ultimate strength	eye & jaw	1
1/2TBE&E	1/2" x 12" turnbuckle	eye & eye	2
1/2TBE&J	11,000 lbs. ultimate strength	eye & jaw	2
5/8TBE&J	5/8" x 12" turnbuckle 17,500 lbs. ultimate strength	eye & jaw	3
3/4TBE&J	3/4" x 12" turnbuckle 26,000 lbs. ultimate strength	eye & jaw	5
7/8TBE&J	7/8" x 12" turnbuckle 36,000 lbs. ultimate strength	eye & jaw	8
1TBE&J	1" x 12" turnbuckle 50,000 lbs. ultimate strength	eye & jaw	10
11/4X18TB	1-1/4" x 18" turnbuckle 76,000 lbs. ultimate strength	eye & jaw	24
11/2TBE&J	1-1/2" x 12" turnbuckle 107,000 lbs. ultimate strength	eye & jaw	28
11/2X18TB	1-1/2" x 18" turnbuckle 107,000 lbs. ultimate strength	eye & jaw	30
**11/2X24TB	1-1/2" x 24" turnbuckle 107,000 lbs. ultimate strength	eye & jaw	35
13/4X18TB	1-3/4" x 18" turnbuckle 140,000 lbs. ultimate strength	eye & jaw	45

**Not a stock item. Allow sufficient time for ordering and delivering.

NOTE: To arrive at safe working load of guy wire and turnbuckles, appropriate safety factor must be applied.

Refer to alphabetical/numerical price list for current prices. Other prices available upon request.

SHEET D-1527
(Replaces D-1415)

April 1, 1979

ACCESSORIES

PART NUMBER		WT.
	ZINC PLATED CABLE CLAMPS	
1/8CCM	1/8" cable clamps, malleable	3/100
	HOT DIP GALVANIZED CABLE CLAMPS	
3/16CCM	3/16" cable clamps, malleable	5/100
3/16CCF	3/16" cable clamps, forged	10/100
1/4CCM	1/4" cable clamps, malleable	12/100
1/4CCF	1/4" cable clamps, forged	18/100
5/16CCF	5/16" cable clamps, forged	32/100
3/8CCF	3/8" cable clamps, forged	48/100
7/16CCF	7/16" cable clamps, forged	72/100
1/2CCF	1/2" cable clamps, forged	78/100
9/16CCF	9/16" cable clamps, forged	96/100
5/8CCF	5/8" cable clamps, forged	100/100
	STANDARD HOT DIP GALVANIZED THIMBLES	
1/4TH	For 1/8" or 3/16" wire with cable clamps	4/100
3/8TH	For 1/4" wire with cable clamps	8/100
	HEAVY DUTY HOT DIP GALVANIZED THIMBLES	
5/16THH	For 3/16" wire with preforms	14/100
3/8THH	For 1/4" wire with preforms or 5/16" wire with cable clamps	25/100
7/16THH	For 5/16" wire with preforms	36/100
1/2THH	For 3/8" or 7/16" wire with cable clamps or 3/8" wire with preforms	50/100
9/16THH	For 7/16" wire with preforms	51/100
5/8THH	For 1/2" or 9/16" wire with cable clamps or preforms	75/100
3/4THH	For 5/8" wire with cable clamps or preforms	150/100
7/8THH	For 3/4" wire with preforms	185/100
	SERVING TOOL	
CST1	Serving tool	3
	HOT DIP GALVANIZED ROUND PIN ANCHOR SHACKLES	
3/8S	1 ton safe working load	30/100
1/2S	2 ton safe working load	65/100
5/8S	3-1/4 ton safe working load	130/100
3/4S	4-3/4 ton safe working load	216/100
7/8S	6-1/2 ton safe working load	325/100
1S	8-1/2 ton safe working load	500/100
11/8S	9-1/2 ton safe working load	700/100
11/4S	12 ton safe working load	960/100
	GUY INSULATORS	
502	Guy strain insulator, closed end type 10,000 lbs. strength	1
504	Guy strain insulator, closed end type 12,000 lbs. strength	1½
506	Guy strain insulator, closed end type 20,000 lbs. strength	3
556	Guy strain insulator, closed end type 33,000 lbs. strength	4½
	INSULATOR CLEVISES	
J725	Use with 502, 12,000 lbs. strength, 3" length	85/100
J732	Use with 504, 12,000 lbs. strength, 5" length	130/100

NOTE: J732 can be used with 506 insulators if strength requirement does not exceed 12,000 lbs.

Refer to alphabetical/numerical price list for current prices.

SHEET D-2078
(Replaces D-1352)

June 1, 1983

ACCESSORIES

CONCRETE ANCHORS

PART NUMBER		WT.
GAC253	5/8" x 5' rod with 3-hole twin equalizer plates (EP25343)	11
GAC255	5/8" x 5' rod with 5-hole twin equalizer plates (EP25345)	12
GAR25	5/8" x 5' rod only with eye	8
EP25343	3-hole twin equalizer plates with nuts and bolts	3
EP25345	5-hole twin equalizer plates with nuts and bolts	4

PART NUMBER	WT.	PART NUMBER	WT.
GAC3455	25	GAC5855	220
GAC5655	65	GAC5955	310
GAC5755	125	GAC6055	380

WALL ANCHORS

GAW25	5/8" x 18" threaded wall eye anchor (rod only) with 5" x 5" retaining plates and nuts	3
GAWP253	GAW25 with 3-hole twin equalizer plates (EP25343)	6
GAWP255	GAW25 with 5-hole twin equalizer plates (EP25345)	7

CONCRETE BASE BOLTS (W/DOUBLE NUTS) AND PIER PINS

1/2X12BB	Base bolt	1/2
5/8X12BB	Base bolt	1
3/4X16BB	Base bolt	1-1/2
7/8X16BB	Base bolt	3
3/4X12PP	Pier pin	1
15/16X16PP	Pier pin	3

EARTH SCREW ANCHOR

GAS604	6" screw plate with 4' rod and eye (holding power, 2500 lbs.)	7

Refer to alphabetical/numerical price list for current prices.

F.O.B. PEORIA, ILLINOIS. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

SHEET D-2079
(Replaces D-1241)

June 1, 1983

ACCESSORIES

GROUNDING KITS

PART NUMBER		WT.
BGK	Base Grounding Kit 1 - 5/8" x 8' copper rod 1 - Brass tower attachment lug w/hardware 1 - Brass rod clamp 10'- #4 solid copper wire	10
BGKE	Base Grounding Kit 1 - 5/8" x 8' galvanized rod 1 - Tower attachment lug w/hardware 1 - S58 rod clamp 5'- #6 solid copper wire	10
AGK	Anchor (Wire) Grounding Kit (For 3 Anchors) 3 - 5/8" x 8' copper rods 3 - Brass rod clamps 9 - Guy wire ground clamps 45'- #4 stranded copper wire	30
RGK	Anchor Rod Grounding Kit (For 3 Anchors) 3 - 5/8" x 8' copper rods 3 - Brass rod clamps 3 - Brass attachment lugs w/hardware 15'- #4 solid copper wire	24
AGKE	Anchor (Wire) Grounding Kit (For 3 Anchors) 3 - 5/8" x 8' galvanized rods 3 - S58 rod clamps 9 - Guy wire ground clamps 45'- #6 solid copper wire	30
RGKE	Anchor Rod Grounding Kit (For 3 Anchors) 3 - 5/8" x 8' galvanized rods 3 - S58 rod clamps 3 - Attachment lugs w/hardware 15'- #6 solid copper wire	24

GROUND RODS & ACCESSORIES

GR8G	5/8" x 8' galvanized rod w/ground wire clamp	8
GR8C	5/8" x 8' copper rod w/ground wire clamp	8
GR10C	3/4" x 10' threaded copper rod w/ground wire clamp	14
3/4C	3/4" ground rod coupling (to joint GR10C together and required when 3/4D used)	1/2
3/4D	3/4" ground rod driver (for use w/GR10C)	1/2

COPPER WIRE

CW6S	#6 solid	80/MFT
CW4S	#4 solid	125/MFT
CW4ST	#4 stranded	125/MFT
CW2S	#2 solid	200/MFT
CW2ST	#2 stranded	200/MFT
CW2/0ST	#2/0 stranded	411/MFT
CW4/0ST	#4/0 stranded	653/MFT

Refer to alphabetical/numerical price list for current prices.

F.O.B. PEORIA, ILLINOIS. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

SHEET D-2077
(Replaces D-1412)

June 1, 1983

BIG GRIPS (DEAD END) COMPLETE WITH END SLEEVE

PART NUMBER		WT.
	FOR 7-STRAND GALVANIZED GUY WIRE	
BG2142	3/16" Big-Grip, 23" length, complete with GC65303 end sleeve	28/100
BG2144	1/4" Big-Grip, 27" length, complete with GC65136 end sleeve	38/100
BG2146	5/16" Big-Grip, 33" length, complete with GC65128 end sleeve	66/100
*BG2147	3/8" Big-Grip, 37" length, complete with GC65264 end sleeve	95/100
*BG2148	7/16" Big-Grip, 40" length, complete with GC65265 end sleeve	140/100
*BG2115	1/2" Big-Grip, 50" length, complete with GC65266 end sleeve	315/100
*BG2116	9/16" Big-Grip, 55" length, complete with GC65267 end sleeve	480/100
*BG2111	5/8" Big-Grip, 64" length, complete with GC65268 end sleeve	650/100
	FOR 19-STRAND GALVANIZED GUY WIRE	
*BG2112	3/4" Big-Grip, 76" length, complete with GC65269 end sleeve	1080/100

NOTE: 1) End sleeves must be used on all Big-Grips. See Drawing B700607 for procedure to apply end sleeve on Big-Grips.

2) Oversized heavy duty thimbles must be used with all Big-Grips.

*Prices available upon request.

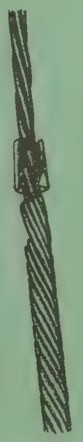
Refer to alphabetical/numerical price list for current prices on other items.

F.O.B. PEORIA, ILLINOIS.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

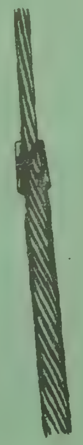
TO ACHIEVE MAXIMUM COVERAGE WITH THE END SLEEVE, THE APPLICATION SHOULD BE CONDUCTED IN THE FOLLOWING MANNER:

(BE SURE TO SELECT PROPER SIZE END SLEEVE)



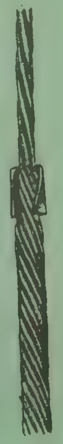
1

PLACE THE SLOT SIDE OF THE END SLEEVE OVER THE LONG LEG OF THE DEAD-END.



2

DRIVE THE SLEEVE DOWNWARD UNTIL THE RODS OF SHORT LEG ARE COMPLETELY COVERED.



3

THE RODS OF THE LONG LEG SHOULD BE EVEN WITH, OR MAY EXTEND ABOVE, THE TOP EDGE OF THE SLEEVE.

NO.	DESCRIPTION	DATE	BY
R1	REVISED GUY GRIP TO BIG GRIP	7-6-76	DH

REVISIONS

ROHN

TITLE APPLICATION PROCEDURE
FOR BIG-GRIP END SLEEVE

THIS DRAWING IS THE PROPERTY OF ROHN. IT IS NOT TO BE REPRODUCED, COPIED, OR TRACED IN WHOLE OR IN PART WITHOUT OUR WRITTEN CONSENT.

FILE NO.

SCALE NONE
MATERIAL
FINISH
WT
DWN BY H ARCHANG
DATE 6-9-70
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE GIVEN IN INCHES
CK'D BY
DATE
TOLERANCES DEC ± FRAC ± ANGLES ±
APPD
DATE 6-9-70
DWG. NO. B-700607
R1

PRINTED IN U.S.A.

SELF-SUPPORTING HEIGHT OF TOWERS

TOWER MODEL	WIND LOAD = 20 PSF								WIND LOAD = 30 PSF								WIND LOAD = 40 PSF								WIND LOAD = 50 PSF							
	NO ICE				$\frac{1}{2}$" ICE				NO ICE				$\frac{1}{2}$" ICE				NO ICE				$\frac{1}{2}$" ICE				NO ICE				$\frac{1}{2}$" ICE			
	ANTENNA AREA, FT.^{2}								ANTENNA AREA, FT.^{2}								ANTENNA AREA, FT.^{2}								ANTENNA AREA, FT.^{2}							
	0	2	5	10	0	2	5	10	0	2	5	10	0	2	5	10	0	2	5	10	0	2	5	10	0	2	5	10	0	2	5	10
20	39.1	31.9	23.8	15.8	26.1	22.7	18.6	13.7	32.0	24.9	17.6	11.1	21.3	18.0	14.1	9.9	27.7	20.7	14.1	8.6	18.5	15.2	11.5	7.8	24.8	18.0	11.7	7.0	16.5	13.3	9.8	6.4
25	44.7	37.6	29.4	20.4	29.8	26.5	22.3	17.1	36.6	29.5	21.9	14.4	24.4	21.1	17.2	12.5	31.7	24.8	17.7	11.2	21.1	17.9	14.1	9.9	28.3	21.5	14.8	9.1	18.9	15.7	12.1	8.2
45	56.8	50.4	42.3	32.2	37.9	35.0	31.1	25.7	46.4	40.1	32.4	23.6	31.0	28.1	24.3	19.3	40.2	34.0	26.7	18.7	26.9	24.0	20.3	15.7	36.0	29.8	22.8	15.5	24.0	21.2	17.6	13.2
55	71.1	65.4	57.8	47.4	49.2	46.5	42.6	37.0	58.1	52.5	45.1	35.6	40.3	37.5	33.8	27.8	50.4	44.8	37.7	28.8	34.9	32.2	28.5	23.4	45.1	39.5	32.6	24.3	31.2	28.5	24.9	20.0
65	83.9	79.7	73.8	65.1	62.4	60.0	56.7	51.6	68.6	64.5	58.7	50.4	51.0	48.7	45.4	40.5	59.5	55.4	49.7	41.8	44.3	41.9	38.7	33.9	53.3	49.1	43.6	35.9	39.6	37.3	34.1	29.4

NOTES:

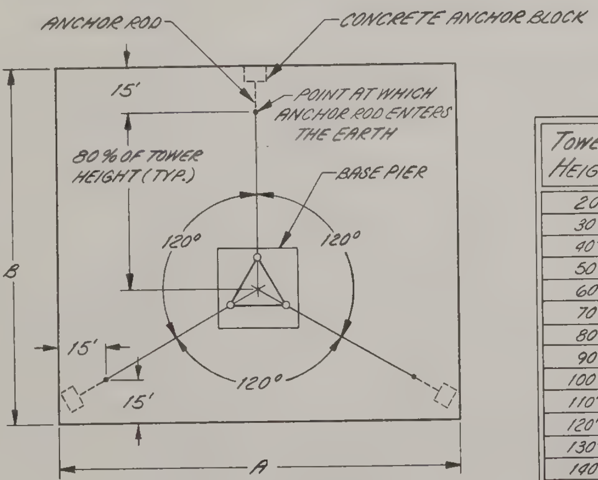
1) CALCULATIONS ARE BASED UPON STEEL HAVING A YIELD STRENGTH OF 50,000 PSI.
2) CALCULATIONS DO NOT INCLUDE THE WEIGHT OR WIND ON ANY TRANSMISSION LINES.
3) CALCULATIONS ARE BASED UPON E.I.A. STANDARDS.
4) ANTENNAS ARE CONSIDERED TO BE AT THE APEX OF THE TOWER.
5) THIS DRAWING SUPERCEDES CHART No. 660-MH.

DWG. No. B-691119-

11-24-69

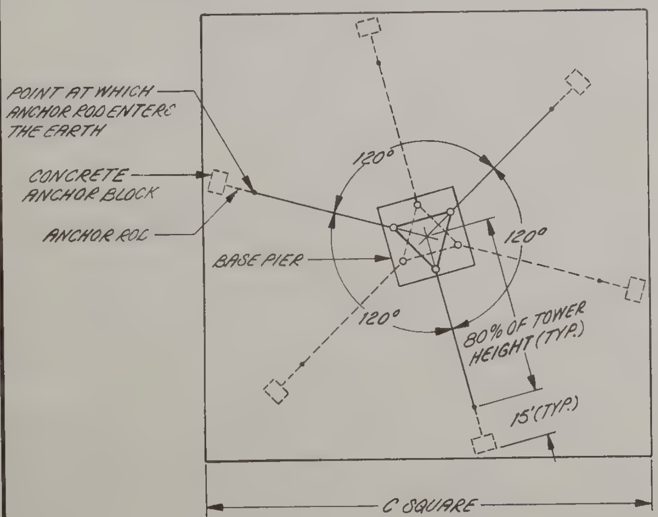
ROHN MFG.

PEORIA, ILLINOIS


ANCHOR ROD
CONCRETE ANCHOR BLOCK
15'
POINT AT WHICH ANCHOR ROD ENTERS THE EARTH
80 % OF TOWER HEIGHT (TYP.)
BASE PIER
120°
120°
120°
B
15'
15'
A

LAYOUT A

THIS IS THE MINIMUM AREA OF LAND REQUIRED. HOWEVER, THIS AREA WILL NOT ALWAYS PERMIT ORIENTING TOWER INTO THE BEST POSITION FOR ANTENNA PATH DIRECTION.



LAYOUT B

THIS IS THE MINIMUM AREA OF LAND REQUIRED TO PERMIT ORIENTING THE TOWER IN ANY POSITION FOR ANTENNA PATH DIRECTION.

TOWER HEIGHT	LAYOUT A			LAYOUT B	
	ACRES	A	B	ACRES	C
20'	.08	60'	55'	.10	65'
30'	.12	75'	70'	.15	80'
40'	.17	90'	80'	.21	95'
50'	.21	100'	90'	.28	110'
60'	.28	115'	105'	.39	130'
70'	.35	130'	115'	.48	145'
80'	.43	145'	130'	.59	160'
90'	.50	155'	140'	.70	175'
100'	.59	170'	150'	.83	190'
110'	.70	185'	165'	1.01	210'
120'	.80	200'	175'	1.16	225'
130'	.94	215'	190'	1.32	240'
140'	1.04	225'	200'	1.49	255'
150'	1.16	240'	210'	1.67	270'
160'	1.32	255'	225'	1.93	290'
170'	1.46	270'	235'	2.19	305'
180'	1.64	285'	250'	2.35	320'
190'	1.76	295'	260'	2.58	335'
200'	1.92	310'	270'	2.81	350'
210'	2.13	325'	285'	3.14	370'
220'	2.31	340'	295'	3.40	385'
230'	2.50	350'	310'	3.67	400'
240'	2.68	365'	320'	3.95	415'
250'	2.88	380'	330'	4.34	430'
260'	3.13	395'	345'	4.65	450'
270'	3.34	410'	355'	4.96	465'
280'	3.57	420'	370'	5.29	480'
290'	3.80	435'	380'	5.63	495'
300'	4.03	450'	390'	5.97	510'
310'	4.33	465'	405'	6.45	530'
320'	4.53	475'	415'	6.82	545'
330'	4.84	490'	430'	7.20	560'
340'	5.10	505'	440'	7.59	575'
350'	5.37	520'	450'	8.00	590'
360'	5.71	535'	465'	8.54	610'
370'	5.94	545'	475'	8.97	625'
380'	6.30	560'	490'	9.40	640'
390'	6.60	575'	500'	9.85	655'
400'	6.91	590'	510'	10.31	670'
410'	7.23	600'	525'	10.93	690'
420'	7.55	615'	535'	11.41	705'
430'	7.96	630'	550'	11.90	720'
440'	8.29	645'	560'	12.40	735'
450'	8.69	660'	570'	12.91	750'
460'	9.00	670'	585'	13.61	770'
470'	9.36	685'	595'	14.15	785'
480'	9.80	700'	610'	14.69	800'
490'	10.18	715'	620'	15.25	815'
500'	10.49	725'	630'	15.81	830'

GENERAL NOTES

1. SPACE ALLOWANCE HAS BEEN MADE FOR CONCRETE ANCHORS AS SHOWN ON LAYOUT.
2. INFORMATION IN CHART IS BASED ON OUTER ANCHORS BEING LOCATED 80% OF TOWER HEIGHT FROM BASE AND ORIENTED 120° APART.
3. DIMENSION SHOWN ON TOWER ASSEMBLY DRAWING IS FROM TOWER BASE TO POINT AT WHICH ANCHOR ROD ENTERS THE EARTH.
4. REFER TO DWG. NO. C-620643 R8 FOR DETAILS OF CONCRETE ANCHOR BLOCKS.
5. REFER TO DWG. NO. C-610621 R1 FOR DETAILS OF CONCRETE BASE PIERS
6. REFER TO DWG. NO. C-660415-D FOR DETAILS OF ANCHOR RODS.
7. ALL INFORMATION ABOVE IS BASED ON LEVEL GROUND SITE CONDITIONS.
8. DUE TO VARIABLES INVOLVED IN ROOF AND OTHER INSTALLATIONS, IT SHALL BE THE CUSTOMER'S OR INSTALLER'S RESPONSIBILITY TO PROVIDE STRUCTURALLY ADEQUATE SUPPORTS FOR PIER & ANCHOR CONNECTIONS. IT MAY ALSO BE NECESSARY FOR THE CUSTOMER OR INSTALLER TO SECURE THE SERVICE OF A LOCAL ENGINEER TO DETERMINE THAT INSTALLATION COMPLIES WITH LOCAL BUILDING CODES.

NO.	DESCRIPTION	DATE	BY
R2	ADDED NOTE 8	7-6-76	OH
R1	REDRAWN	4-15-75	MEH

REVISIONS

ROHN® MANUFACTURING
DIVISION OF UNARCO

TITLE LAND AREA REQUIREMENTS FOR 80% GUYED TOWERS

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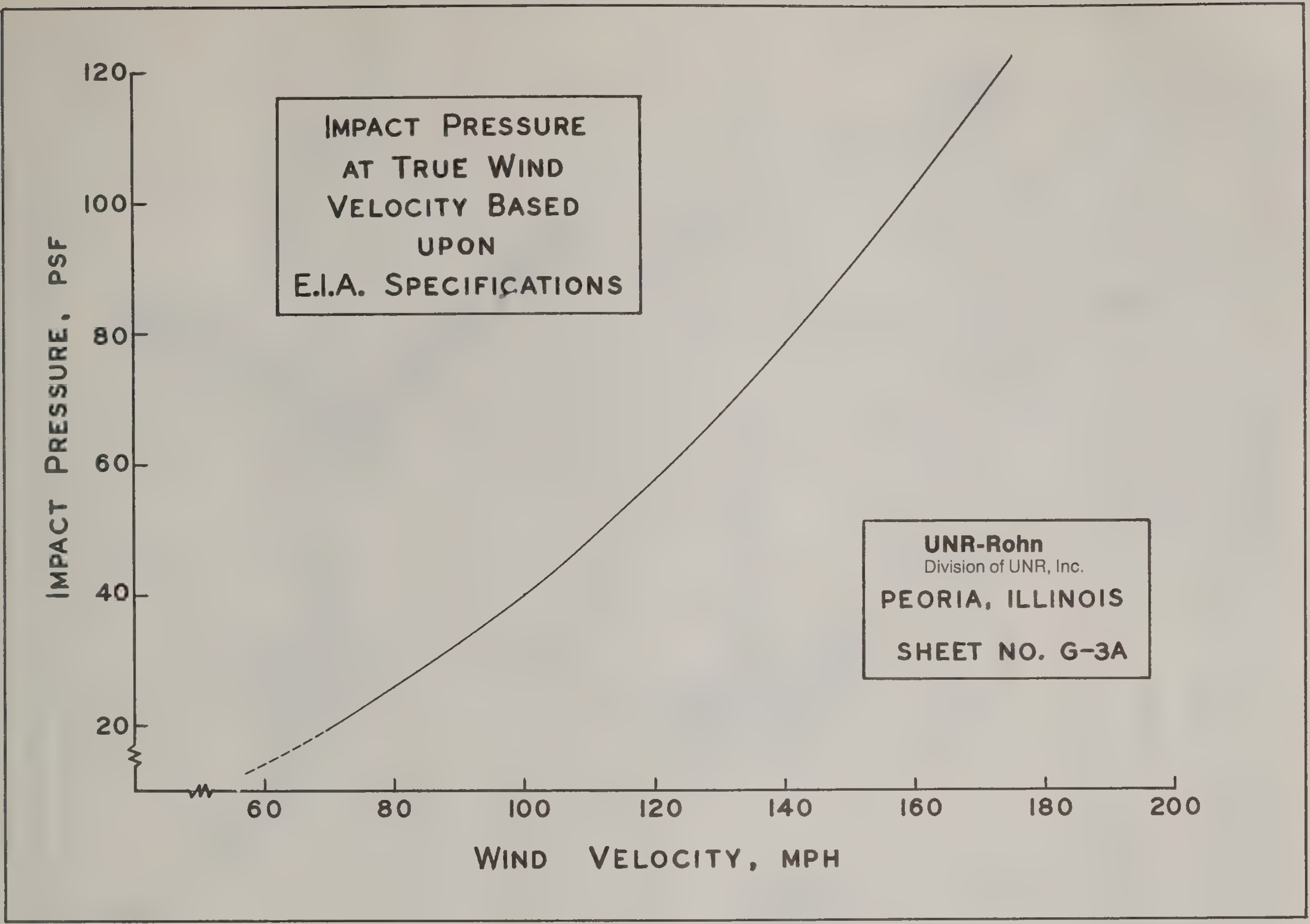
FILE NO.

SCALE NONE
MATERIAL
FINISH
WT
DWN. BY MEH DATE 4-8-75
CK'D BY OH DATE 4-15-75
APP'D ENGRG. CW DATE 4-15-75
APP'D SALES DATE 4-16-75
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.
TOLERANCES DEC. ± FRAC. ± ANGLES ±
DWG. NO. C-640531 R2

PRINTED IN U.S.A.



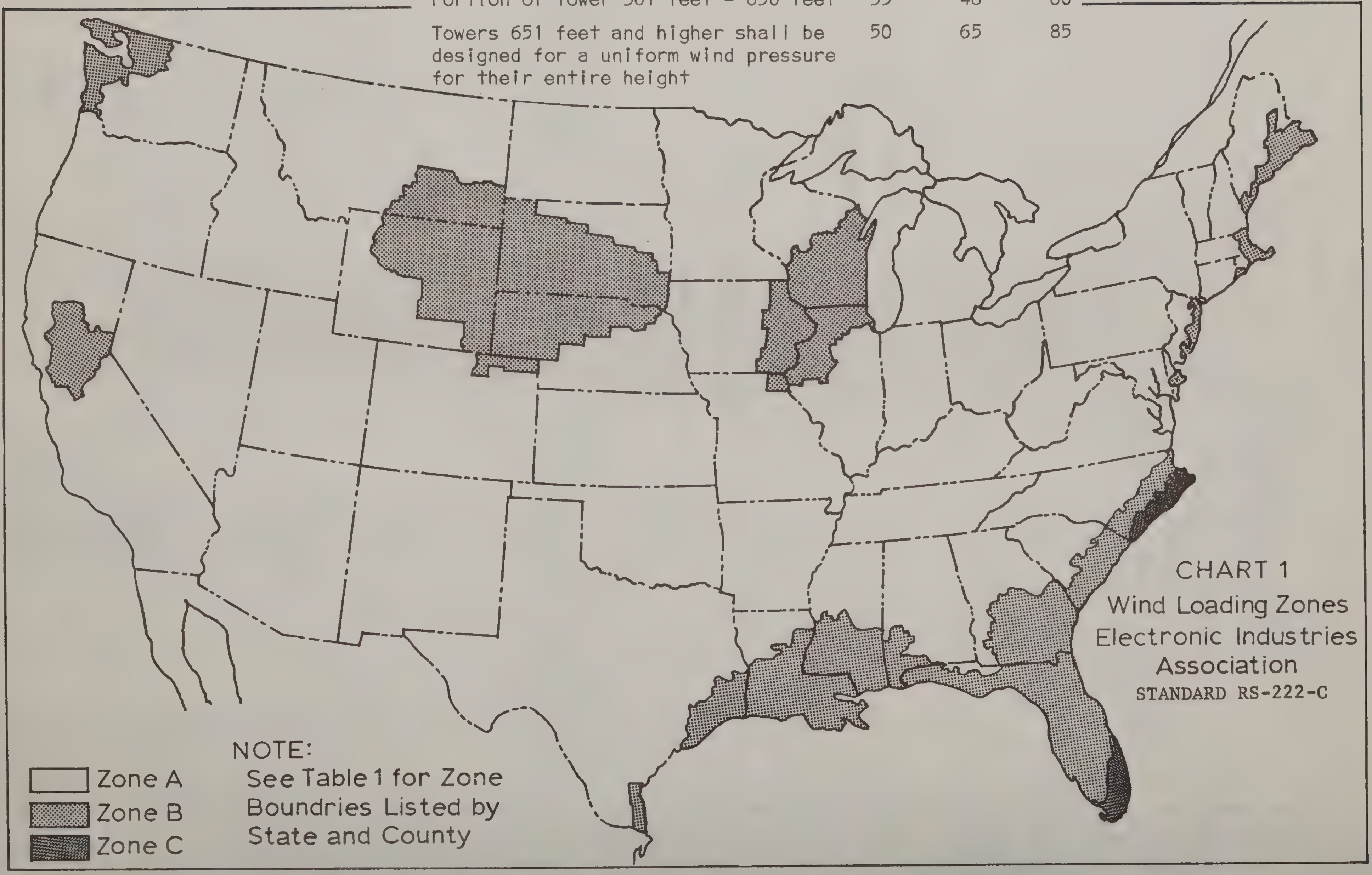
IMPACT PRESSURE AT TRUE WIND VELOCITY BASED UPON E.I.A. SPECIFICATIONS

UNR-Rohn
Division of UNR, Inc.
PEORIA, ILLINOIS
SHEET NO. G-3A

TRUE WIND VELOCITY, MPH	IMPACT PRESSURE, LBS./SQ.FT.
70	19.6
70.7	**20.0**
75	22.5
80	25.6
85	28.9
86.6	**30.0**
90	32.4
95	36.1
100	**40.0**
105	44.1
110	48.4
111.8	**50.0**
115	52.9
120	57.6
122.5	**60.0**
125	62.5

TRUE WIND VELOCITY, MPH	IMPACT PRESSURE, LBS./SQ.FT.
130	67.6
132.3	**70.0**
135	72.9
140	78.4
141.4	**80.0**
145	84.1
150	**90.0**
155	96.1
158.1	**100.0**
160	102.4
165	108.9
165.8	**110.0**
170	115.6
173.2	**120.0**
175	122.5

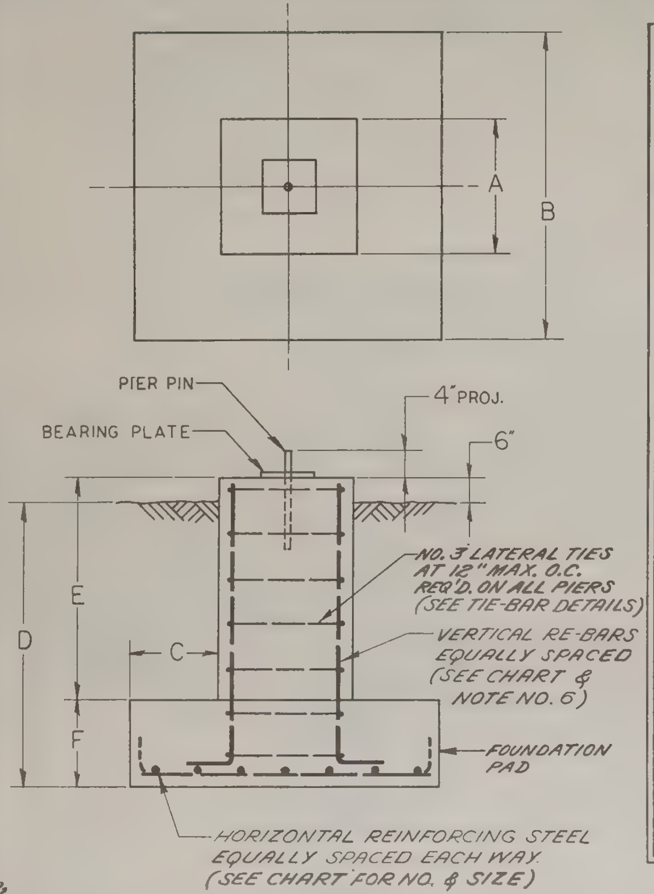
Heights Zone (above ground)	LOADING ZONE A	LOADING ZONE B	LOADING ZONE C
Portion of tower 300 feet and under	30	40	50
Portion of tower 301 feet - 650 feet	35	48	60
Towers 651 feet and higher shall be designed for a uniform wind pressure for their entire height	50	65	85



NOTE:
See Table 1 for Zone Boundries Listed by State and County

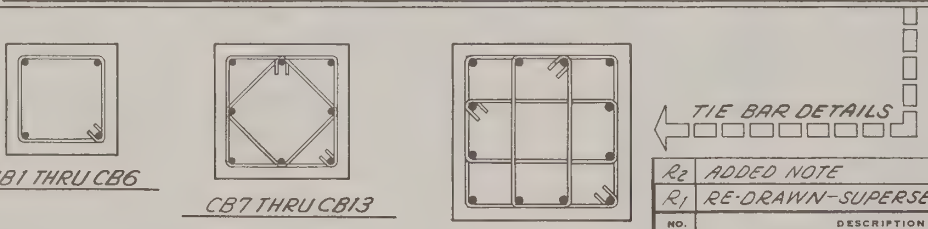
CHART 1
Wind Loading Zones
Electronic Industries Association
STANDARD RS-222-C

Location of wind loading zones based on 50 year mean recurrence interval chart from distribution of extreme winds in the United States by H. C. S. Thom published in the proceedings of the American Society of Civil Engineers. April 1960.


A
B
PIER PIN
BEARING PLATE
4" PROJ.
6"
D
E
C
F
NO. 3 LATERAL TIES AT 12" MAX. O.C. REQ'D. ON ALL PIERS (SEE TIE-BAR DETAILS)
VERTICAL RE-BARS EQUALLY SPACED (SEE CHART & NOTE NO. 6)
FOUNDATION PAD
HORIZONTAL REINFORCING STEEL EQUALLY SPACED EACH WAY. (SEE CHART FOR NO. & SIZE)

CONCRETE BASE SCHEDULE

CB NO.	TOWER BASE REACTION	DIMENSIONS A	B	C	D	E	F	BEARING PLATE	CONC. (CU. YDS.)	VERTICAL BARS (NO. & SIZE)	HORIZ. BARS (NO. & SIZE)
1	14000	2'-0	2'-0	0	4'-0	0	0	BP 6	.70	4-NO.6	NONE*
2	22000	2'-6	2'-6	0	4'-0	0	0	BP 6	1.00	4-NO.6	NONE*
3	32000	3'-0	3'-0	0	4'-0	0	0	BP 6	1.50	4-NO.6	NONE*
4	44000	3'-6	3'-6	0	4'-0	0	0	BP 6	2.10	4-NO.6	NONE*
5	58000	2'-0	4'-0	1'-0"	4'-0	3'-3	1'-3	BP 6	1.22	4-NO.6	6-NO.4
6	74000	2'-0	4'-6	1'-3"	4'-0	3'-3	1'-3	BP 6	1.42	4-NO.6	6-NO.5
7	90000	2'-0	5'-0	1'-6	4'-6	3'-9	1'-3	BP 10	1.70	8-NO.6	6-NO.5
8	109000	2'-0	5'-6	1'-9	4'-6	3'-9	1'-3	BP 10	2.00	8-NO.6	6-NO.5
9	130000	2'-0	6'-0	2'-0	4'-6	3'-6	1'-6	BP 10	2.50	8-NO.6	7-NO.5
10	150000	2'-0	6'-6	2'-3	4'-6	3'-6	1'-6	BP 10	2.90	8-NO.6	8-NO.5
11	173000	2'-6	7'-0	2'-3	5'-0	3'-9	1'-9	BP 15	4.00	8-NO.7	8-NO.6
12	198000	2'-6	7'-6	2'-6	5'-0	3'-9	1'-9	BP 15	4.50	8-NO.7	8-NO.6
13	224000	2'-6	8'-0	2'-9	5'-0	3'-9	1'-9	BP 15	5.00	8-NO.7	9-NO.6
14	251000	3'-0	8'-6	2'-9	5'-0	3'-6	2'-0	BP 15	6.50	12-NO.7	9-NO.7
15	279000	3'-0	9'-0	3'-0	5'-0	3'-6	2'-0	BP 15	7.20	12-NO.7	10-NO.7


TIE BAR DETAILS

CB1 THRU CB6

CB7 THRU CB13

CB14 & CB 15

R2 NOTE: DUE TO VARIABLES INVOLVED IN ROOF AND OTHER INSTALLATIONS, IT SHALL BE THE CUSTOMER'S OR INSTALLER'S RESPONSIBILITY TO PROVIDE STRUCTURALLY ADEQUATE SUPPORTS FOR PIER & ANCHOR CONNECTIONS. IT MAY ALSO BE NECESSARY FOR THE CUSTOMER OR INSTALLER TO SECURE THE SERVICE OF A LOCAL ENGINEER TO DETERMINE THAT INSTALLATION COMPLIES WITH LOCAL BUILDING CODES.

GENERAL NOTES:

1. BASE PIER DESIGNED FOR AN ALLOWABLE NET SOIL PRESSURE OF 4000 PSF.
2. CONCRETE - 3000 PSI MIN. ULT. STRENGTH AT 28 DAYS.
3. REINFORCING STEEL - ASTM A-615 GRADE 40 DEFORMED BARS.
4. MIN. COVER ON ALL REINFORCING STEEL IS 3".
5. ALL FORMS MUST BE REMOVED FROM CONCRETE BEFORE PLACING COMPACTED BACKFILL.
6. VERTICAL REINFORCING STEEL MAY BE PLACED WITH AN OPTIONAL STANDARD ACI 90° BEND AT BOTTOM.
7. FOUNDATION DESIGN PER E.I.A STANDARDS.
8. BEARING PLATE PROVIDED ONLY ON TOWERS WITH TAPERED BASE.

*9. HORIZ. BARS IN CHART REFER ONLY TO THE BARS IN THE FOUNDATION PAD.

R5	ADDED GENERAL NOTE #9	1-21-80	JHO
R4	REMOVED RS-222-B FROM GEN. NOTE NO. 7.	3/7/77	GLS
R3	DELETE SIZE PIER PIN.	7/29/76	GLS

NO.	DESCRIPTION	DATE	BY
R2	ADDED NOTE	7-6-76	OH
R1	RE-DRAWN - SUPERSEDES C-6106210	2-26-75	OH

REVISIONS

ROHN® MANUFACTURING
DIVISION OF UNARCO

TITLE
CONCRETE BASE SCHEDULE

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FILE NO.

SCALE ~
MATERIAL
FINISH
WT.

DWN. BY O.H. DATE 2-26-75
CK'D. BY WDU DATE 3-7-75
APP'D. ENGRG. CW DATE 3-7-75
APP'D. BR DATE 3-15-75

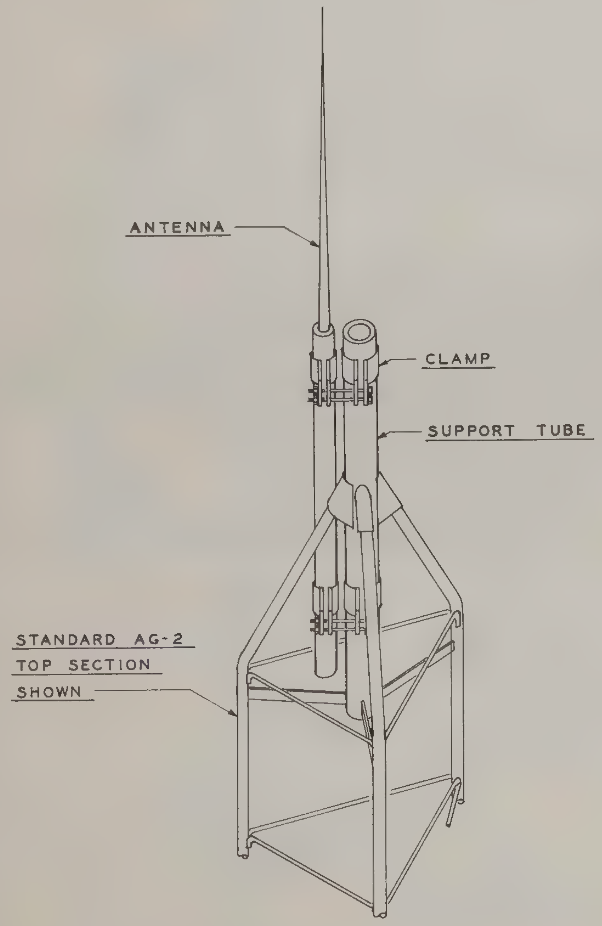
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.
TOLERANCES DEC. ± FRAC. ± ANGLES ±

DWG. NO. C 610621 R5

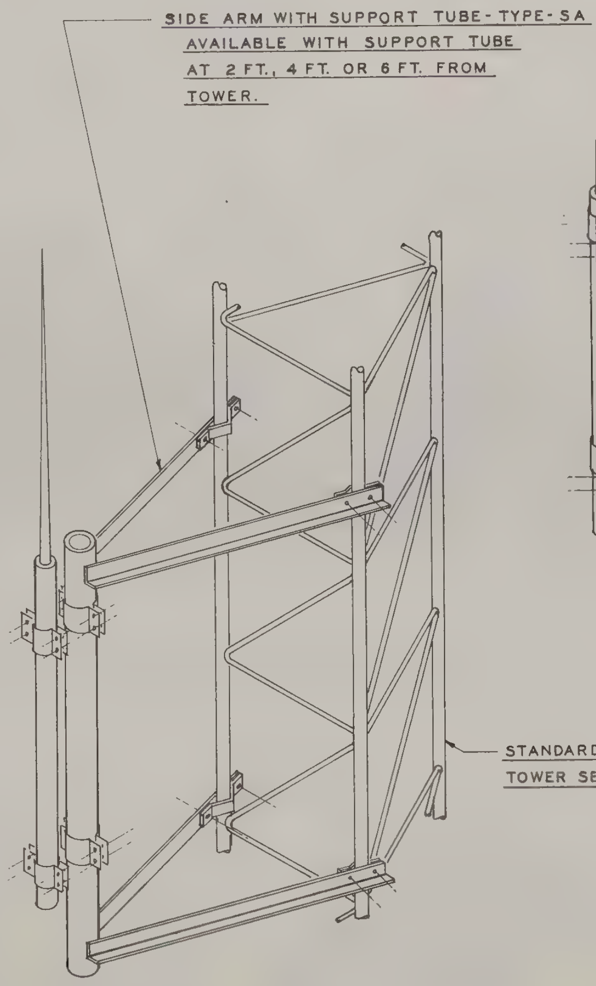
GAF 880-250 2-72 48194

PRINTED IN U.S.A.

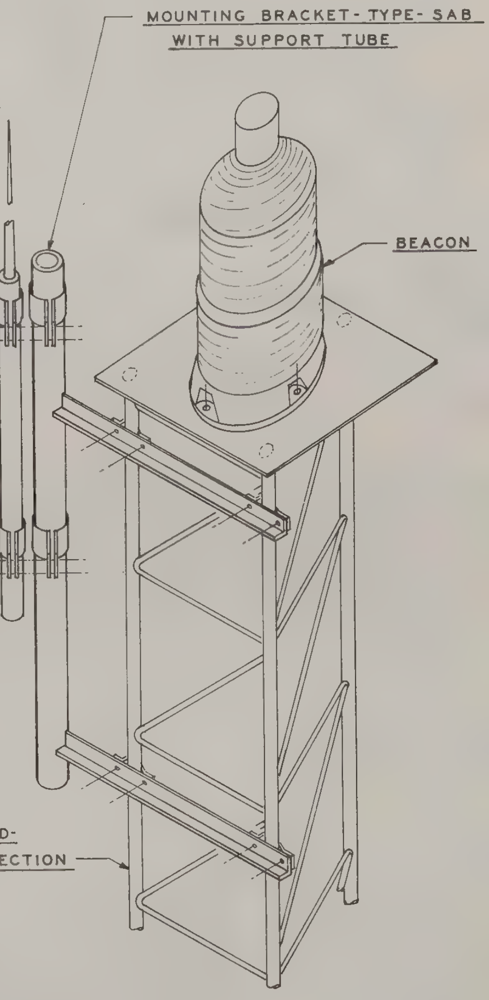
C-661 004



TOP MOUNTING


SIDE ARM WITH SUPPORT TUBE - TYPE - SA
AVAILABLE WITH SUPPORT TUBE
AT 2 FT., 4 FT. OR 6 FT. FROM
TOWER.
STANDARD-
TOWER SECTION

SIDE MOUNTING-
(AT ANY LEVEL)



TOP MOUNTING-
(WITH BEACON)

1)- THIS DRAWING SUPERCEDES DRAWINGS C-060262 & C-060221-J-R

NO.	REVISION	BY	DATE
1	REDRAWN	CK	10-12-66

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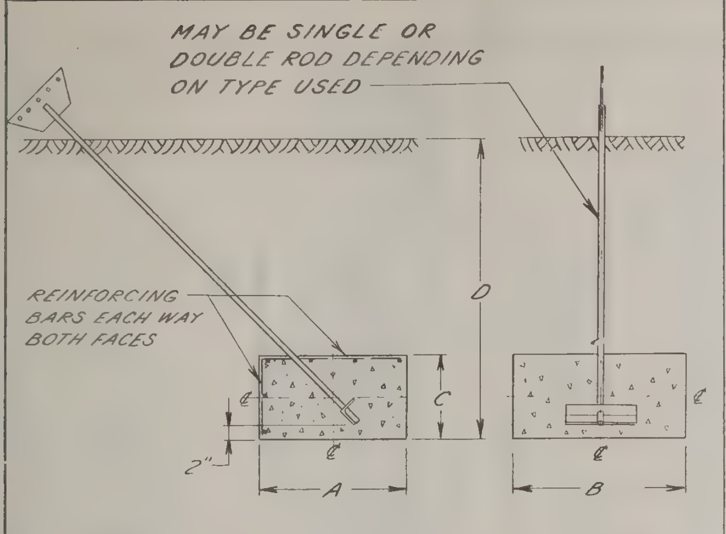
DRAWN ck
CHECKED
APPROVED
DATE 10-12-66
SCALE NONE

ANTENNA MOUNTING DETAILS

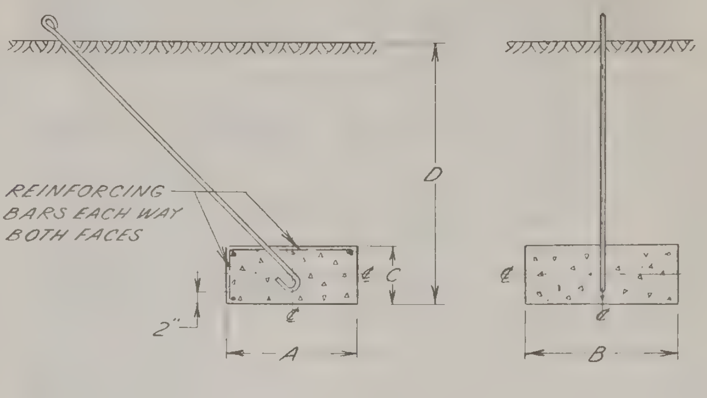
ROHN MANUFACTURING
PEORIA, ILLINOIS

DRAWING NO.
C-661 004

ILLINOIS B.P CO. 199M


MAY BE SINGLE OR DOUBLE ROD DEPENDING ON TYPE USED
REINFORCING BARS EACH WAY BOTH FACES
D
C
2"
A
B
℄

ANCHOR DETAIL FOR GAC-34, 56, 57, & 58
SHOWN ON DWG. NO. C-660415



ANCHOR DETAIL FOR GAC-25

R9 NOTE: DUE TO VARIABLES INVOLVED IN ROOF AND OTHER INSTALLATIONS, IT SHALL BE THE CUSTOMER'S OR INSTALLER'S RESPONSIBILITY TO PROVIDE STRUCTURALLY ADEQUATE SUPPORTS FOR PIER & ANCHOR CONNECTIONS. IT MAY ALSO BE NECESSARY FOR THE CUSTOMER OR INSTALLER TO SECURE THE SERVICE OF A LOCAL ENGINEER TO DETERMINE THAT INSTALLATION COMPLIES WITH LOCAL BUILDING CODES.

GENERAL NOTES

- ** 1. ANCHOR DESIGN ASSUMES E.I.A. NORMAL SOIL.
- 2. CONCRETE, 3,000 PSI MINIMUM ULTIMATE STRENGTH.
- 3. ASTM A-615 GRADE 40 DEFORMED REBARS.
- 4. MINIMUM CONCRETE COVER ON ALL REBARS IS 2".
- 5. MINIMUM ½" DIAMETER REINFORCING BARS IN ALL ANCHORS WITH MAXIMUM SPACING OF 12" EXCEPT NO. 10 BLOCK MAXIMUM SPACING OF 6".
- 6. ALL FORMS MUST BE REMOVED FROM CONCRETE BEFORE PLACING COMPACTED BACKFILL.

CONCRETE ANCHOR DATA

DEPTH, D (FT.)	ROD NO.	BLOCK NO.	ANCHOR DIMENSIONS (FT.)			WEIGHT CONCRETE (LBS)	CONCRETE (CU. YDS.)	UPLIFT * CAPACITY (LBS)	LATERAL CAPACITY (LBS.)
			A	B	C				
3	GAC-25	3a	1.5	1.5	1	310	.08	900	1,500
		3b	2	2	1	560	.15	1,320	2,000
		3c	2.5	2.5	1	870	.23	1,810	2,500
		3d	3	3	1	1,260	.33	2,535	3,000
		3e	3	4	1	1,680	.44	3,020	4,000
4	GAC-34	4a	3	3	1.5	1,890	.50	3,490	5,850
		4b	3	4	1.5	2,520	.67	4,360	7,800
		4c	3	5	1.5	3,150	.84	4,985	9,750
		4d	3	6	1.5	3,780	1.00	6,090	11,100
		4e	4	6	1.5	5,050	1.33	7,660	11,700
6	GAC-56	6a	3	4	1.5	2,520	.67	10,035	12,600
		6b	3	5	1.5	3,150	.84	11,600	15,750
		6c	3	6	1.5	3,780	1.00	13,150	18,900
		6d	4	6	1.5	5,050	1.33	15,850	18,900
8	GAC-57	8a	3	5	1.5	3,150	.84	22,150	21,750
		8b	3	6	1.5	3,780	1.00	24,700	26,100
		8c	4	6	1.5	5,050	1.33	28,500	26,100
		8d	6	6	2.0	10,800	2.67	33,380	33,600
10	GAC-58	10a	3	6	2.0	5,040	1.33	37,450	43,200
		10b	4	6	2.0	6,720	1.78	42,700	43,200
		10c	4	7	2.0	7,840	2.07	46,800	50,400
		10d	5	7	2.0	9,800	2.59	52,350	50,400
		10e	5	9	2.0	12,600	3.33	61,700	64,800

* INCLUDES SAFETY FACTOR OF 2

** NORMAL SOIL IS A COHESIVE TYPE SOIL WITH A HORIZONTAL BEARING CAPACITY OF 400 POUNDS PER SQUARE FOOT PER LINEAL FOOT OF DEPTH. ROCK, NON-COHESIVE SOILS, OR SATURATED OR SUBMERGED SOILS ARE NOT TO BE CONSIDERED AS NORMAL.

NO.	DESCRIPTION	DATE	BY
R11	REVISED ANCHOR DETAIL DWG. NO.	8-19-[illegible]	[illegible]
R10	REMOVED RS-222-D FROM GEN. NOTE NO. 1	3/7/77	GLS
R9	ADDED NOTE	[illegible]	[illegible]
R8	REVISE DESIGN NOTE 1.	[illegible] 14 75	[illegible]
R7	REVISE DESIGN NOTE 1 & TITLE BLOCK	[illegible]	[illegible]
R6	GAC-25 WAS GA-25	12-7-73	JEK
R5	REVISED FOR EIA RS-222-B	4/4/7[illegible]	GLS

REVISIONS

ROHN® MANUFACTURING
DIVISION OF UNARCO

TITLE STANDARD CONCRETE ANCHORS

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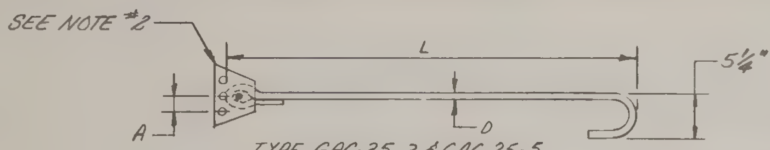
FILE NO

SCALE NONE
MATERIAL
FINISH
WT
DWN BY GLS
DATE 4-3-73
CH'D BY WDW
DATE 4 4 73
APP'D ENGRG CLU
DATE 4-4-73
APP'D BR
DATE 4-[illegible]-73

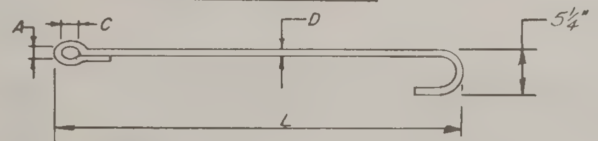
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE GIVEN IN INCHES

TOLERANCES
DEC ±
FRAC ±
ANGLES ±

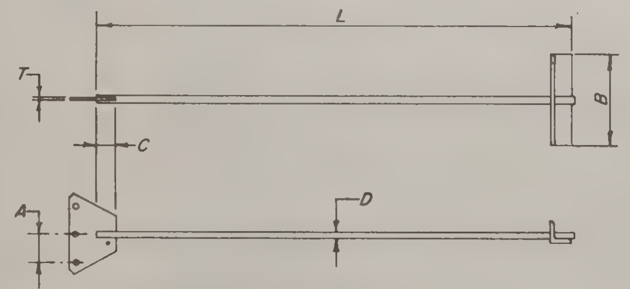
DWG NO. C-620643 R11



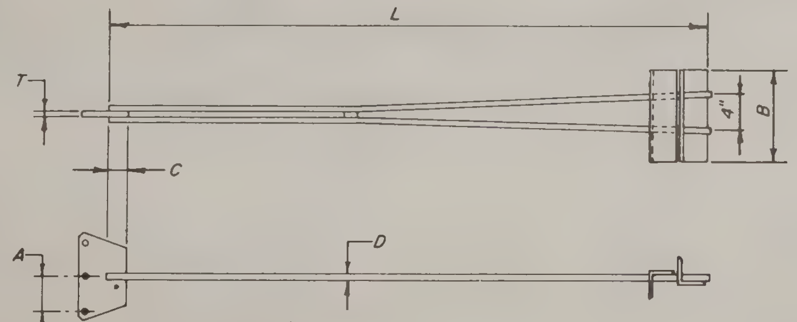
TYPE GAC-25-3 & GAC-25-5



TYPE GAR-25



TYPES- GAC-75,100,34,56 & 57



TYPES - GAC-58 & 59

ANCHOR ROD DETAILS

ANCHOR ROD DATA

	PART NUMBER	EQUALIZER PLATE TYPE	DIMENSIONS IN INCHES						WEIGHT-LBS.	LOAD CAPACITY-LBS.
			L	A	B	C	D	T		
	GAR-25	EYE	64	1	—	2	5/8	—	8	5,500
	GAC-25-3	EE	64	2	—	—	5/8	3/16	12	5,500
	GAC-25-5	EE	64	2	—	—	5/8	3/16	13	5,500
	GAC-75-1	EJ	120	11/16	12	3	3/4	1/2	25	13,250
SEE NOTE 6	GAC-75-3	EJ	120	2 1/2	12	3	3/4	1/2	30	13,250
	GAC-75-5	EJ	120	2 1/2	12	3	3/4	1/2	35	13,250
	GAC-100-1	EJ	120	15/16	12	4	1 1/8	3/4	55	23,550
SEE NOTE 7	GAC-100-3	EJ	120	3	12	4	1 1/8	3/4	65	23,550
	GAC-100-5	EJ	120	3	12	4	1 1/8	3/4	75	23,550
	GAC-34-33	EJ	84	2	12	2 1/2	3/4	3/8	20	13,250
	GAC-56-33	EJ	120	2 1/2	12	3	1 1/4	1/2	60	36,800
	GAC-57-33	EJ	168	3	12	4	1 7/16	3/4	115	48,600
	GAC-58-33	EJ	192	4	12	6	1 1/4	1	200	73,600
	GAC-59-33	EJ	240	4	18 R_2	6	1 7/16	1	300	97,300
	GAC-34-55	EJ	84	2	12	2 1/2	3/4	3/8	25	13,250
	GAC-56-55	EJ	120	2 1/2	12	3	1 1/4	1/2	65	36,800
	GAC-57-55	EJ	168	3	12	4	1 7/16	3/4	125	48,600
	GAC-58-55	EJ	192	4	12	6	1 1/4	1	220	73,600
	GAC-59-55	EJ	240	4	18 R_2	6	1 7/16	1	310	97,300

8) SEE DRAWING NO. C-730323 FOR ANCHOR ROD FAB. DETAILS.
7) USE EQUALIZER PLATES EP-57-WITH 1 1/16" SLOT-FOR GAC-100 SERIES ANCHORS.
6) USE EQUALIZER PLATES EP-56-WITH 13/16" SLOT-FOR GAC-75 SERIES ANCHORS.
5) TYPE-EJ EQUALIZER PLATES ARE USED WITH EYE & JAW TURNBUCKLES
4) TYPE-EE EQUALIZER PLATES ARE SUPPLIED IN PAIRS FOR EYE & EYE TURNBUCKLES.
3) PART NO. SUFFIXES-1,3,5,33 & 55 DENOTES-1,3 OR 5 HOLES IN PLATES.
2) TYPE GAC-25 RODS ARE SUPPLIED WITH TYPE 2534-EE EQUALIZER PLATES.
1) SEE DRAWING NO. C-660416-B_2 FOR EQUALIZER PLATE DETAILS.

NO	DESCRIPTION	DATE	BY
R_3	REV. GAR 25 & GAC 25	2-16-83	RM
R_2	'B' DIMENSION WAS 12"	9/15/78	GLS
R1	REVISED #57 ROD D DIM. & CAPACITY	8-11-77	TS
0	DELETE #60 ROD, REVISE CAP. #25 ROD	1-15-75	WEB

REVISIONS

ROHN® MANUFACTURING
DIVISION OF

TITLE
ANCHOR ROD SCHEDULE

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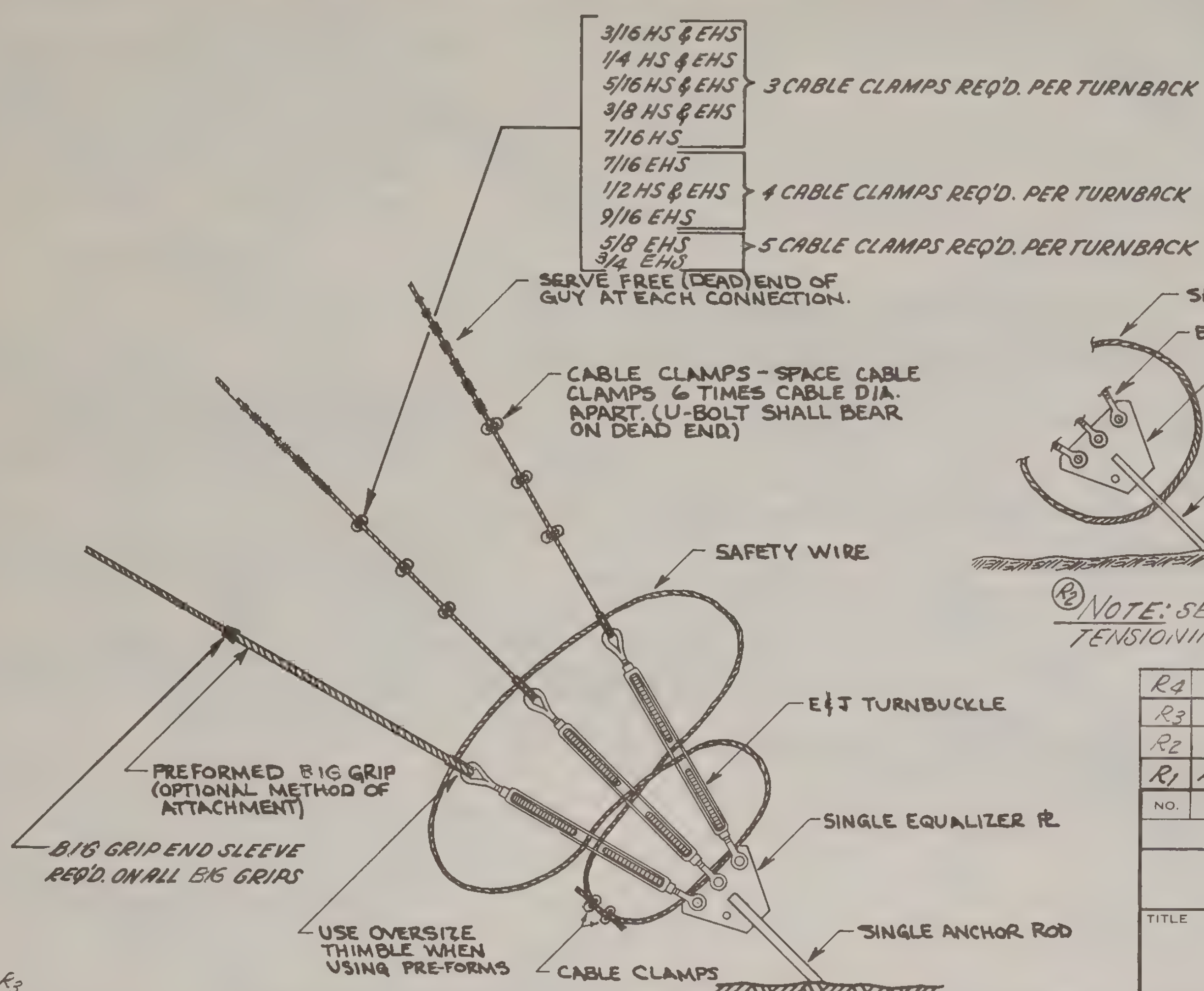
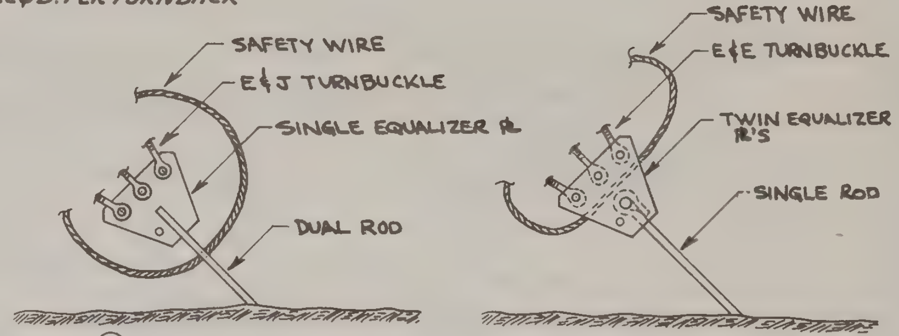
FILE NO

SCALE NONE	MATERIAL	FINISH	WT
DWN BY DM	DATE 3-22-73	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE GIVEN IN INCHES.	
CK'D BY Ram	DATE 3-26-73	TOLERANCES DEC . FRAC . ANGLES :	DWG NO C-660415 R_3
APP'D ENGRG CW	DATE 3-27-73		
APP'D SALES GR	DATE 3-28-23		

CITY BLUE PRINT 1000H 2-72 48191-

PRINTED IN U.S


3/16 HS & EHS
1/4 HS & EHS
5/16 HS & EHS
3/8 HS & EHS
7/16 HS
3 CABLE CLAMPS REQ'D. PER TURNBACK
7/16 EHS
1/2 HS & EHS
9/16 EHS
4 CABLE CLAMPS REQ'D. PER TURNBACK
5/8 EHS
3/4 EHS
5 CABLE CLAMPS REQ'D. PER TURNBACK
SERVE FREE (DEAD) END OF GUY AT EACH CONNECTION.
CABLE CLAMPS - SPACE CABLE CLAMPS 6 TIMES CABLE DIA. APART. (U-BOLT SHALL BEAR ON DEAD END)
SAFETY WIRE
E&J TURNBUCKLE
SINGLE EQUALIZER PL
SINGLE ANCHOR ROD
CABLE CLAMPS
USE OVERSIZE THIMBLE WHEN USING PRE-FORMS
PREFORMED BIG GRIP (OPTIONAL METHOD OF ATTACHMENT)
BIG GRIP END SLEEVE REQ'D. ON ALL BIG GRIPS



(R2) NOTE: SEE DWG. NO. C-611211R3 FOR CABLE TENSIONING & TURNBUCKLE MAINTENANCE DETAILS.

R3 NOTE: DUE TO VARIABLES INVOLVED IN ROOF AND OTHER INSTALLATIONS, IT SHALL BE THE CUSTOMER'S OR INSTALLER'S RESPONSIBILITY TO PROVIDE STRUCTURALLY ADEQUATE SUPPORTS FOR PIER & ANCHOR CONNECTIONS. IT MAY ALSO BE NECESSARY FOR THE CUSTOMER OR INSTALLER TO SECURE THE SERVICE OF A LOCAL ENGINEER TO DETERMINE THAT INSTALLATION COMPLIES WITH LOCAL BUILDING CODES.

NO.	DESCRIPTION	DATE	BY
R4	ADDED 3/4" EHS GUY WIRE	9-25-79	RM
R3	ADDED NOTE	7-6-76	DH
R2	ADDED NOTE	7-25-75	DH
R1	ADDED CABLE CLAMPS REQ'D PER GUY SIZE	12-18-74	DH

REVISIONS

R O H N

TITLE
TURNBUCKLE SAFETY METHODS

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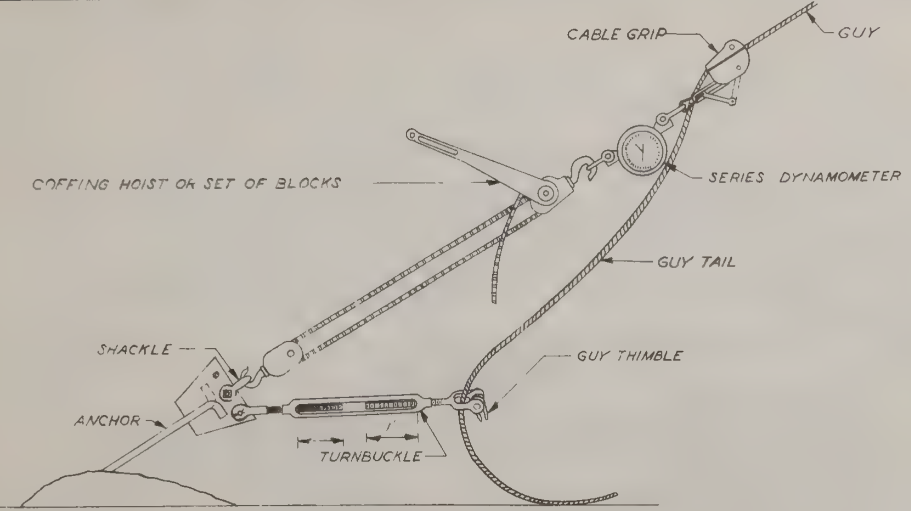
FILE NO.

SCALE NONE	MATERIAL	FINISH	WT
DWN BY A. JOHNSON	DATE 3-16-68	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE GIVEN IN INCHES	
CK'D BY D.H.	DATE 4-4-68	TOLERANCES DEC ± FRAC ± ANGLES ±	DWG. NO. B-680324 R4
APP'D G.R.	DATE		



STEP 1

TENSION EACH OF THE THREE GUYS AT EACH GUYING LEVEL IN ACCORDANCE WITH THE DIAGRAM SHOWN ABOVE BY FIRST APPLYING THE INITIAL TENSION AS SPECIFIED ON APPLICABLE DRAWINGS AND DURING THE APPLICATION OF TENSIONING THE TOWERS VERTICAL ALIGNMENT SHALL BE CHECKED WITH TWO SURVEY TRANSITS ESTABLISHED 90° APART. (SEE GENERAL NOTE NO. 2)

TURNBUCKLE MAINTENANCE NOTES

1. GREASE ALL END FITTINGS PRIOR TO USE, USING NO. 16 MATCHLESS GREASE STICKS, OR EQUIVALENT.
2. TURNBUCKLE SIZES 1/4" THRU 5/8" TO BE TURNED BY HAND ONLY.
3. FOR SIZES 3/4" & LARGER, ASSEMBLY CAN BE ACCOMPLISHED USING A MAXIMUM 12" LEVER ARM (LARGE SCREWDRIVER, CRESCENT WRENCH, ETC.), USING MODERATE FORCE - NO MORE THAN 40 FOOT-POUNDS SHOULD BE APPLIED.
4. TURNBUCKLES TO BE ADJUSTED ONLY UNDER NO LOAD CONDITIONS.

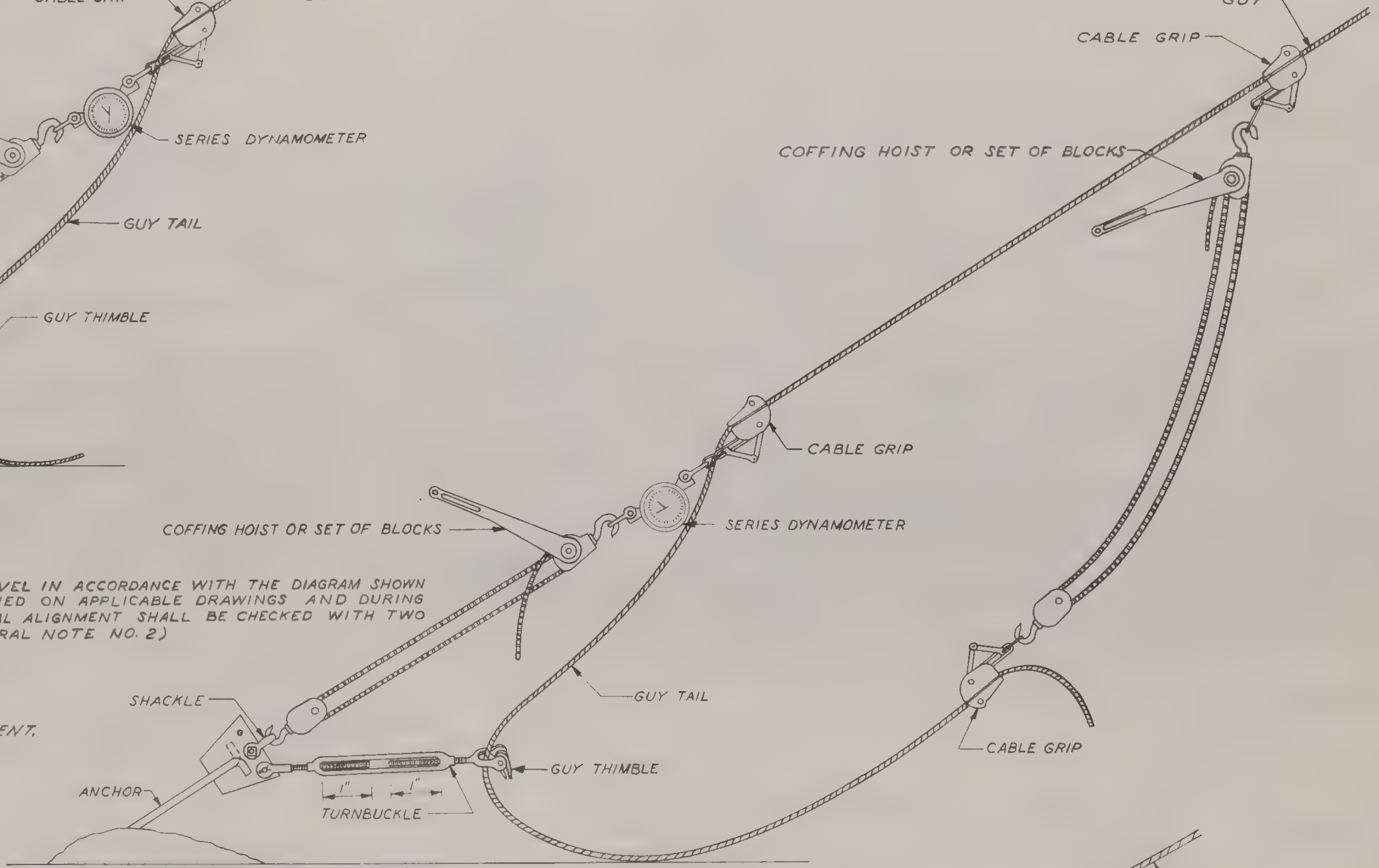
GENERAL NOTES

1 REPEAT STEPS 1, 2, & 3 AT EACH GUYING LEVEL.

2 AT EACH GUYING LEVEL, ONLY ONE GUY REQUIRES A SERIES DYNAMOMETER PROVIDING THAT STEPS ARE TAKEN TO CONSTANTLY CHECK AGAINST ROTATIONAL MOVEMENT DURING TENSIONING. ALL GUYS SHALL BE TENSIONED SIMULTANEOUSLY AND EQUALLY.

3 THE TOWER SHALL REMAIN VERTICAL, WITHOUT TWIST, DURING THE ENTIRE ERECTION AND TENSIONING OPERATION.

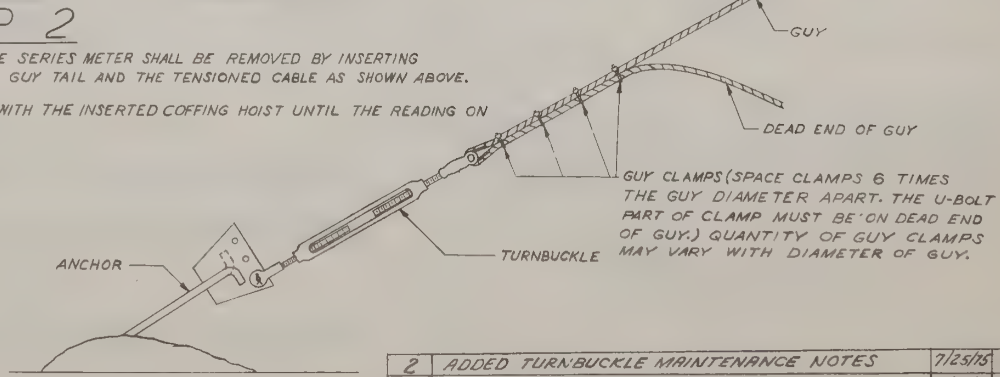
4 FINALLY, AFTER COMPLETE TOWER IS ERECTED, CHECK THE TOWER FOR PLUMBNESS AND TWIST WITH TWO TRANSITS PLACED 90° APART. USE TURNBUCKLES TO MAKE ANY ADJUSTMENTS NECESSARY.



STEP 2

A AFTER STEP "1" HAS BEEN COMPLETED, THE SERIES METER SHALL BE REMOVED BY INSERTING ANOTHER COFFING HOIST BETWEEN THE GUY TAIL AND THE TENSIONED CABLE AS SHOWN ABOVE.

B NEXT, APPLY TENSION ON THE GUY TAIL WITH THE INSERTED COFFING HOIST UNTIL THE READING ON THE SERIES METER BEGINS TO FALL OFF.



GUY CLAMPS (SPACE CLAMPS 6 TIMES THE GUY DIAMETER APART. THE U-BOLT PART OF CLAMP MUST BE ON DEAD END OF GUY.) QUANTITY OF GUY CLAMPS MAY VARY WITH DIAMETER OF GUY.

STEP 3

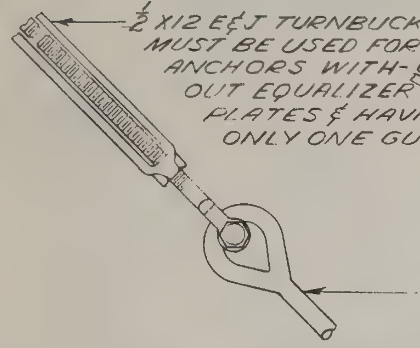
A AFTER ITEM "B" IN STEP "2" HAS BEEN COMPLETED, CLAMP GUY TAIL WITH GUY CLAMPS.

B SAFETY WIRE THE TURNBUCKLE. (SEE DRWG. NO. B-680324

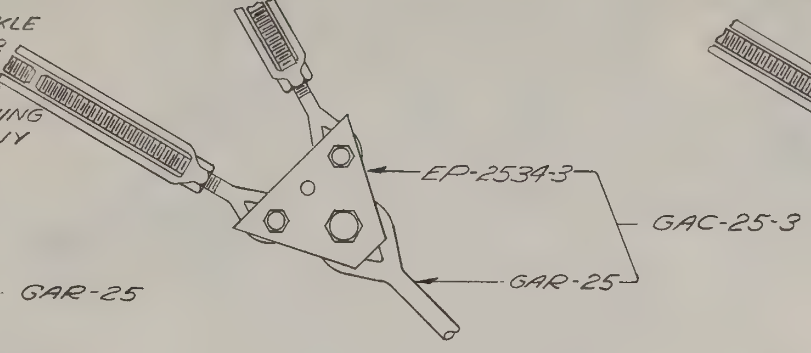
C DEAD END OF GUY SHOULD BE LEFT 2' LONG UNTIL FINAL CHECK FOR PLUMBNESS AND TWIST HAS BEEN MADE.

NO.	DESCRIPTION	DATE	BY
2	ADDED TURNBUCKLE MAINTENANCE NOTES	7/25/75	OH
1	CHANGED REFERENCE DWG. NO.	8/27/69	GLS

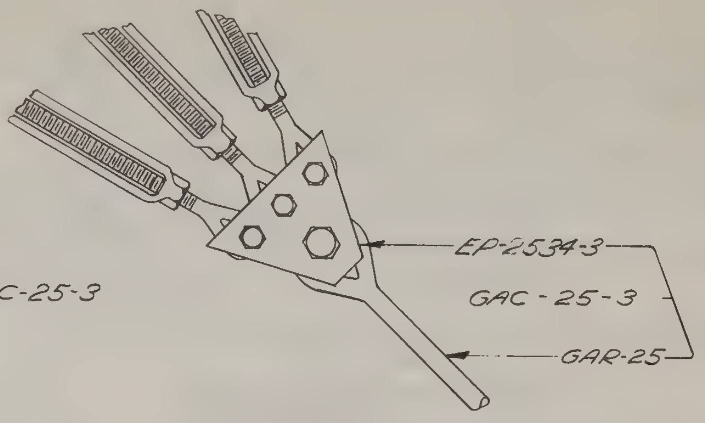
DRAWN L. HOFFMAN	CUSTOMER	TITLE
CHECKED DAA		DETAILS FOR CABLE TENSIONING STANDARD GUYING
APPROVED DAA		
DATE DEC. 11, 1961	ROHN MFG. PEORIA, ILLINOIS	DRAWING NO. C-611211-R2
SCALE NONE		


½ X12 E&J TURNBUCKLE MUST BE USED FOR ANCHORS WITHOUT EQUALIZER PLATES & HAVING ONLY ONE GUY
GAR-25

NO EQUALIZER PLATE
REQUIRED FOR ONE GUY



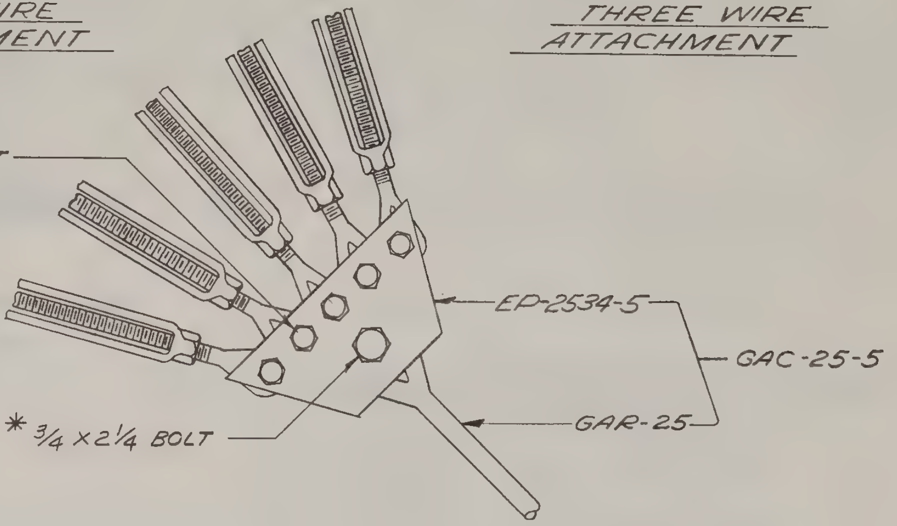
TWO WIRE
ATTACHMENT



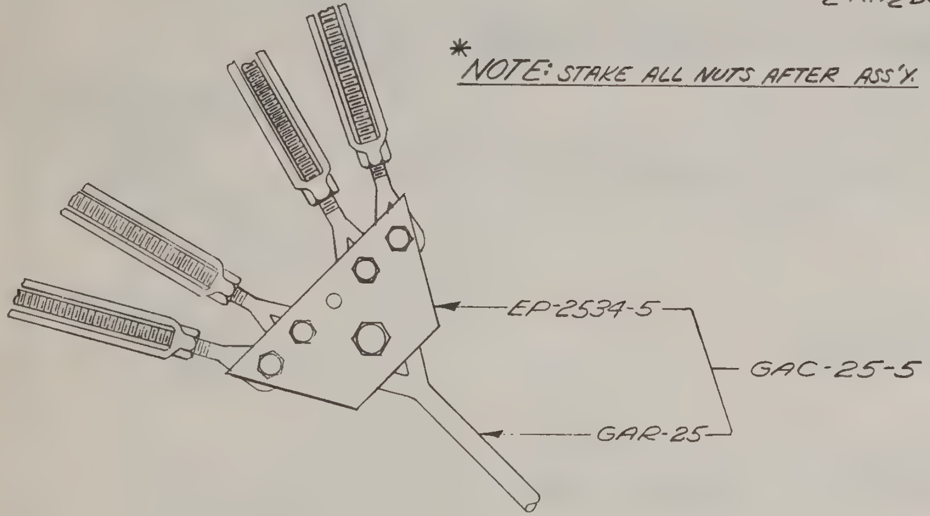
THREE WIRE
ATTACHMENT

*NOTE: STAKE ALL NUTS AFTER ASS'Y.

*½ X1½ BOLT



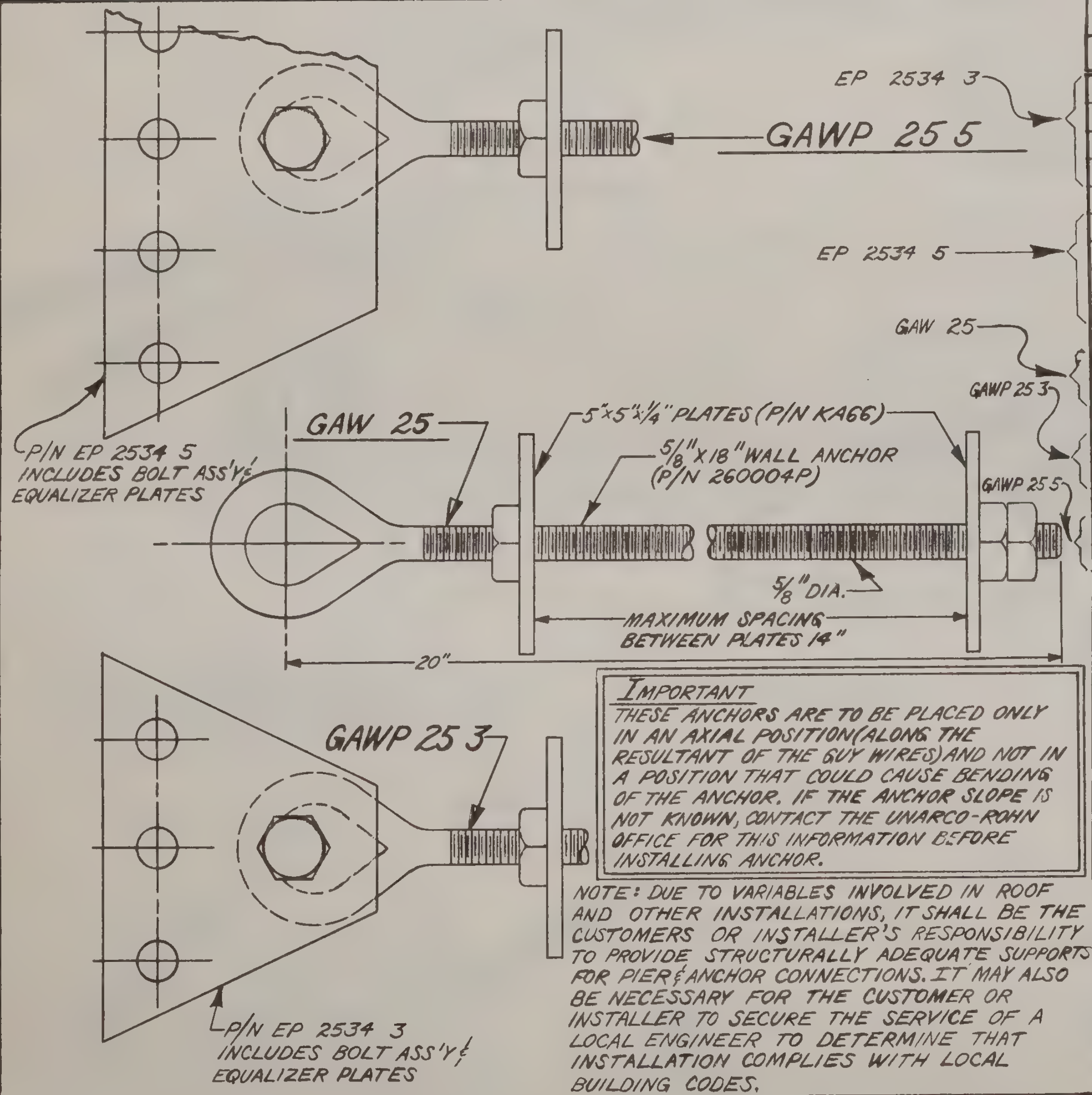
FIVE WIRE
ATTACHMENT



FOUR WIRE
ATTACHMENT

R2 ADD BOLT SIZES 9-14-76 WPL
R1 - 7-28-64 - O.H.

DRAWN O.HASCHKE		TITLE
CHECKED RAK		ANCHOR ATTACHMENT GAR - 25 GAC - 25-3 GAC - 25-5
APPROVED ck		
DATE 6-6-64	ROHN	DRAWING NO.
SCALE NONE	PEORIA, ILLINOIS	B-640525-R2


EP 2534 3
GAWP 25 5
EP 2534 5
GAW 25
GAWP 25 3
GAWP 25 5
P/N EP 2534 5 INCLUDES BOLT ASS'Y & EQUALIZER PLATES
GAW 25
5"x5"x¼" PLATES (P/N KA66)
5/8"X18" WALL ANCHOR (P/N 260004P)
5/8" DIA.
MAXIMUM SPACING BETWEEN PLATES 14"
20"
GAWP 25 3
P/N EP 2534 3 INCLUDES BOLT ASS'Y & EQUALIZER PLATES

IMPORTANT

THESE ANCHORS ARE TO BE PLACED ONLY IN AN AXIAL POSITION (ALONG THE RESULTANT OF THE GUY WIRES) AND NOT IN A POSITION THAT COULD CAUSE BENDING OF THE ANCHOR. IF THE ANCHOR SLOPE IS NOT KNOWN, CONTACT THE UNARCO-ROHN OFFICE FOR THIS INFORMATION BEFORE INSTALLING ANCHOR.

NOTE: DUE TO VARIABLES INVOLVED IN ROOF AND OTHER INSTALLATIONS, IT SHALL BE THE CUSTOMERS OR INSTALLER'S RESPONSIBILITY TO PROVIDE STRUCTURALLY ADEQUATE SUPPORTS FOR PIER & ANCHOR CONNECTIONS. IT MAY ALSO BE NECESSARY FOR THE CUSTOMER OR INSTALLER TO SECURE THE SERVICE OF A LOCAL ENGINEER TO DETERMINE THAT INSTALLATION COMPLIES WITH LOCAL BUILDING CODES.

BILL OF MATERIAL

QUAN.	PART NO.	DESCRIPTION	DWG. NO.
2	EP25 3	3-HOLE EQUALIZER ℞'S.	C 660416R1
1	210048GA	¾"X2¼ BOLT ASS'Y	
3	210018GA	½"X1½" BOLT & NUT ASS'Y	
1	720004	PLASTIC BAG 6"X9"	
2	EP25 5	5-HOLE EQUALIZER ℞'S.	C 660416R1
1	210048GA	¾"X2¼" BOLT ASS'Y.	
5	210018GA	½"X1½" " " " "	
1	720006	PLASTIC BAG 9"X13"	
1	260004P	5/8"X18" WALL ANCHOR	
2	KA66	5"X5"X¼" RETAINER ℞'S.	
1	EP 2534 3	EQUALIZER PLATE KIT	
1	GAW 25	WALL ANCHOR ASS'Y	
1	EP 2534 5	EQUALIZER PLATE KIT	
1	GAW 25	WALL ANCHOR ASS'Y	

NO.	DESCRIPTION	DATE	BY
R3	ADDED NOTE	10·15·80	J.H.J.
R2	ADDED BILLS OF MATERIAL	6-2-77	J.H.D.
R1	ADDED NOTE	7-6-76	O.H.

REVISIONS

ROHN® MANUFACTURING

DIVISION OF UNARCO

TITLE

WALL & ROOF ANCHOR

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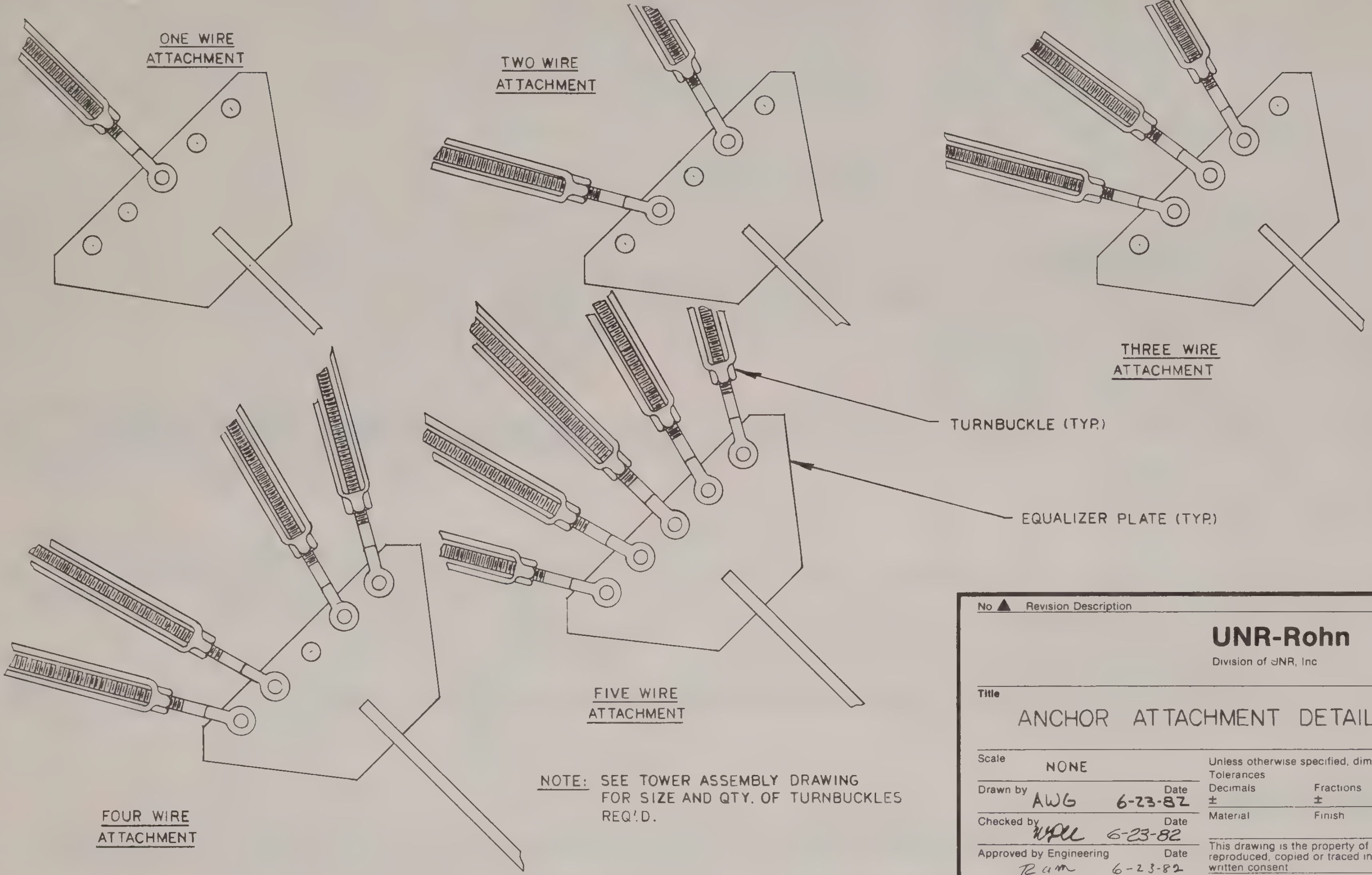
FILE NO.

SCALE ~	MATERIAL	FINISH	WT.
DWN. BY J.H.D.	DATE 6-21-77	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
CK'D BY D.L.	DATE	TOLERANCES DEC. ± FRAC ± ANGLES ±	DWG. NO. B 710804 R3
APP'D ENGRG	DATE 8-5-71		
APP'D SALES	DATE 8-6-71		



NOTE: SEE TOWER ASSEMBLY DRAWING
FOR SIZE AND QTY. OF TURNBUCKLES
REQ'D.

No ▲ Revision Description ▲ Date ▲ By

UNR-Rohn
Division of UNR, Inc

Title
ANCHOR ATTACHMENT DETAIL

Scale NONE
Drawn by AWG Date 6-23-82
Checked by WPU Date 6-23-82
Approved by Engineering Ram Date 6-23-82
Approved by Production Date
Approved by Sales GR Date 6-24-82

Unless otherwise specified, dimensions are given in inches.
Tolerances
Decimals ± Fractions ± Angles ±
Material Finish Weight

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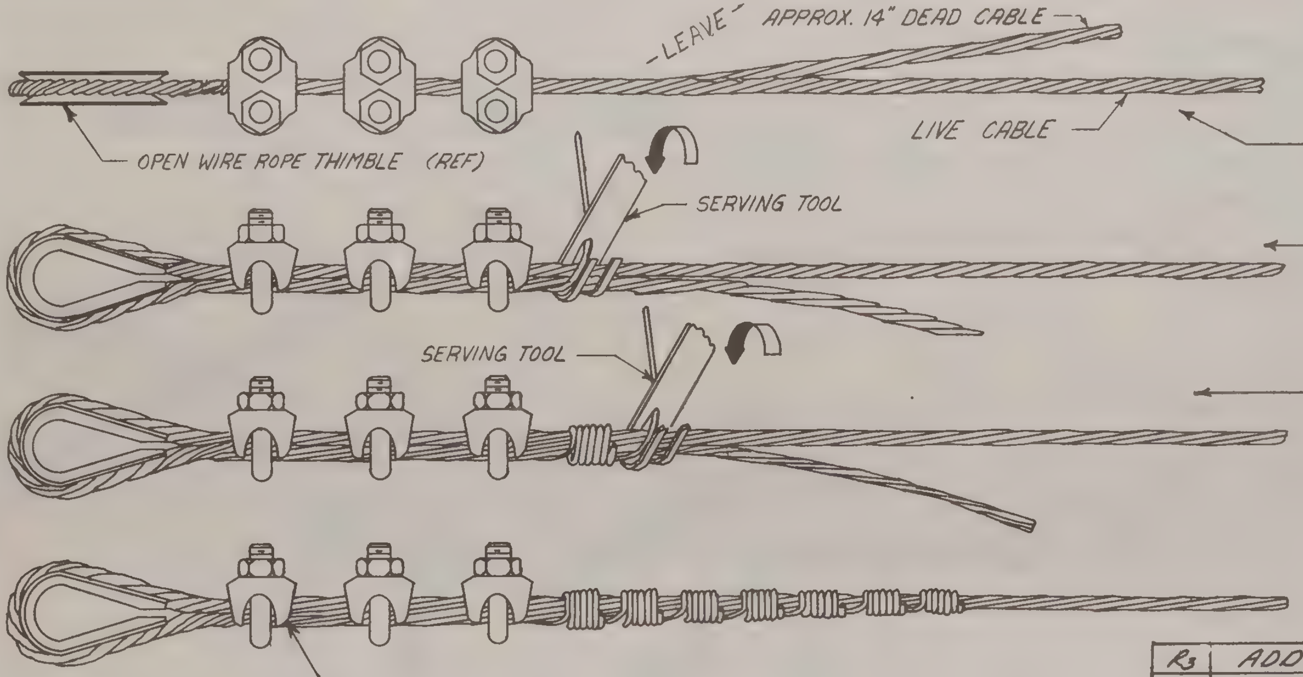
File Number

Drawing Number B820511



INSTRUCTIONS

1) SPACE CABLE CLAMPS OR FIST GRIPS 6X CABLE DIA. APART. (U-BOLT SHALL BEAR ON DEAD END)

2) UNWIND ONE STRAND FROM DEAD CABLE, APPLY SERVING TOOL, AND WRAP 6 TIMES AROUND.

3) UNWIND SECOND STRAND FROM DEAD CABLE, APPLY SERVING TOOL, AND WRAP 6 TIMES AROUND. REPEAT WITH EACH REMAINING STRAND.

4) COMPLETED CONNECTION CLIPPED AND SERVED EACH STRAND WOUND AROUND GUY CABLE SIX TIMES.

5) RETIGHTEN CABLE CLAMPS AFTER INITIAL TENSION HAS BEEN APPLIED.

3/16 HS & EHS 1/4 HS & EHS 5/16 HS & EHS 3/8 HS & EHS 7/16 HS	3 CABLE CLAMPS OR FIST GRIPS REQ'D. PER TURNBACK
7/16 EHS 1/2 HS & EHS 9/16 EHS	4 CABLE CLAMPS OR FIST GRIPS REQ'D. PER TURNBACK
5/8 EHS 3/4 EHS	5 CABLE CLAMPS OR FIST GRIPS REQ'D. PER TURNBACK

R_2 NOTE: DUE TO VARIABLES INVOLVED IN ROOF AND OTHER INSTALLATIONS, IT SHALL BE THE CUSTOMER'S OR INSTALLER'S RESPONSIBILITY TO PROVIDE STRUCTURALLY ADEQUATE SUPPORTS FOR PIER & ANCHOR CONNECTIONS. IT MAY ALSO BE NECESSARY FOR THE CUSTOMER OR INSTALLER TO SECURE THE SERVICE OF A LOCAL ENGINEER TO DETERMINE THAT INSTALLATION COMPLIES WITH LOCAL BUILDING CODES.

NO.	DESCRIPTION	DATE	BY
R_3	ADDED FIST GRIPS	9-25-79	RM
R_2	ADDED NOTE	7-6-76	OH
R_1	REDRAWN	1-3-75	WR

REVISIONS

ROHN® MANUFACTURING

DIVISION OF UNARCO

TITLE CLIPPED AND SERVED GUY CABLE CONNECTION INSTRUCTIONS

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FILE NO.

SCALE NONE	MATERIAL	FINISH	WT.
DWN. BY WR	DATE 1-3-75	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE GIVEN IN INCHES.	
CK'D. BY OH	DATE 1-7-75	TOLERANCES DEC. ± FRAC. ± ANGLES ±	DWG. NO. B-690712 R_3
APP'D. ENGRG. CW	DATE 1-7-75		
APP'D. SALES BK	DATE 1-7-75		

GAF 880-250 2-72 48191

PRINTED IN U.S.A.

SHEET R-2216
(Replaces R-2212)

June 1, 1983

ROHN
SPECIAL SERVICES AVAILABLE

Non-Engineer Site Inspections or Supervision (Domestic)	$400.00 Per Man Day Plus Travel Expenses
Engineer Site Inspections or Supervision (Domestic)	$600.00 Per Man Day Plus Travel Expenses
Site Supervision (International)	$800.00 Per Man Day Plus All Expenses **
Special Concrete Foundation Design Drawings and Calculations (Soil Analysis by Others) (Anchor Blocks, Base Piers, Pier & Pad, Drill & Bell, Mat, Rock)	$400.00 Per Analysis Plus $150.00 Per Man Hour ($500.00 Minimum) Rate will be 1/2 above with tower order.
Special Concrete & Piling Foundation Design Drawings and Calculations (Soil Analysis by Others) (Piling, Stub Anchors, Special Piers, Etc.)	$500.00 Per Analysis Plus $150.00 Per Man Hour ($750.00 Minimum) Rate will be 1/2 above with tower order.
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Complete Detailed Analysis on Special Non-Catalog Towers	$400.00 Per Analysis Plus $150.00 Per Man Hour
Preliminary Erection Drawings Showing Tentative Design Prior to Issuance of Purchase Order	$1,000.00 Per Tower (Note: No credit will be issued after issuance of purchase order.)
Erection and Assembly Drawings for All Tower Supplied	No Charge After Receipt of Purchase Order (4 Sets Maximum - $50.00 Each Additional Set)
Shop Drawings (Fabrication Drawings)	Not Supplied

**Maximum of 8 weeks at one time on site and/or in transit from the U.S. Then 2 weeks leave time at same rates including travel expenses to and from U.S. (i.e. for every 8 weeks work outside U.S., charges will be made for 10 weeks, plus all expenses).

If outside source inspection, assembly, etc. is required prior to shipment of an order, $50.00 per man hour (plus equipment time, if applicable) is chargeable, with $300.00 as a minimum.

NOTES:
1) Amounts noted above are net prices.
2) Premium engineering services available at $1,000 per tower or analysis plus $300 per man hour.
3) Prices on engineering pertain to Rohn towers only.
4) A man day (8 hours) begins when UNR-Rohn personnel leave factory (Peoria) and ends upon return.
5) Other engineering services and studies available at $150.00 per man hour plus a computer charge.
6) Subject to change without notice.

DEALER PRICE SHEET D-2065
(Replaces D-1922)

February 1, 1983

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D - 22" x 34"	2.00
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Notes: 1) Minimum billing charge - $50.00.

2) Prices include U.S. third class postage only.

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June 1, 1984

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Ph: 804-798-9299
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Attn: Cliff Yuen

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Ph. 314-225-8488
Attn: Steve Bernstein

R. M. Associates, Ltd.
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Ph. 913-631-7606
Attn: Mike Eakins

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Ph. 214-434-2479
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Ph. 309-697-4400

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Ph. 313-354-3310
Attn: Charles Milsk

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Ph. 317-842-3400
Attn: Ernie Elliott

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LEGAL CONSIDERATIONS IN ERECTING TOWERS AND ANTENNAS

Your local municipality or development may have established height and building standards governing the use of radio towers and antennas. Height restrictions are found in zoning ordinances and private deed restrictions. Building standards may be found in local building codes. Complying with these requirements is usually easy and will help to provide many years of safe and trouble free operation of your station.

Zoning ordinances, building codes and private deed restrictions are complex legal documents. If you question whether they apply to you, consult a local attorney. Five minutes spent in advance can save many hours later.

Zoning ordinances, building codes and deed restrictions are local. If you move from city to city these restrictions may change.

Zoning ordinances are concerned with the type of buildings or other structures you can erect in your neighborhood. In terms of amateur radio or CB towers and antennas, zoning laws will tell you if your property is zoned for such towers and antennas and, if so, what height limitations, if any, are involved.

Building codes are concerned with the safety of buildings or other structures permitted by local zoning ordinances. Building codes will tell you where on your property you can put the tower and antenna and the type of base and support (such as guy wires) you will need.

Both zoning and building codes are usually administered by the same governmental agency, often known as the Department of Building and Safety or the Zoning Board.

The Personal Communications Foundation believes that the following steps will help make sure you have a safe and legal installation:

1. Check with the local governmental agency. Ask whether your home is zoned for an amateur radio or citizens band tower and antenna.

2. Look at the actual zoning ordinances. Pay special attention to the definitions. Many zoning ordinances distinguish between "buildings" and "structures". Others distinguish between towers physically attached to the house, either by guy wires or mounting and towers that are not attached.

3. See if a building permit is required. If so, be sure to get one. They are usually quite inexpensive, often less than one percent of the cost of the tower. As part of the building permit, a local inspector will check and make sure that the base, guy wires, etc., meet local safety requirements. Modern commercially made towers are extremely safe and have a large safety margin, but only if you install them according to the directions! Paying $10.00 to $25.00 for an expert to inspect the foundation and finished installation is the cheapest insurance you can possibly buy! If a permit is required and not obtained, your homeowners' insurance may not insure the tower and you have given neighbors, who might object, ammunition to require you to take the tower down.

4. In a limited number of cases you may need either a zoning variance or a conditional use permit to erect a tower higher than the local zoning board requirements. If so, it is far easier to apply in advance than to put up the tower and apply later. Most local governments are quite cooperative if you apply in advance and follow their rules. Variance provisions are used to provide flexibility from dimensional regulations such as setback or height restrictions. Conditional use permits are used where towers or antennas are not otherwise allowed. A public hearing is usually required before such permits are issued.

5. In addition to local ordinances, real estate developers or homeowners' associations may impose their own requirements in a subdivision. These requirements are usually known as deed restrictions or Conditions, Covenants and Restrictions (CC&R).

If you are thinking of moving into a new area, ask for a copy of the deed restrictions in advance of signing an offer to purchase the property. If you already own a home, a local realtor, title insurance company or lawyer can obtain copies of the deed restrictions, if any, for you. Don't take the word of the real estate salesman who may be wrong!

If there are no deed restrictions, you need only be concerned with local zoning and building codes. If there are deed restrictions, read them carefully. Look at the definitions. See if there are any restrictions on outside antennas or on the height of buildings or other structures or if a local architectural control committee must pass on any additions or changes to your property.

Deed restrictions are legal documents. A local lawyer familiar with real estate law can read the restrictions in only a few minutes and advise you. Even if the deed restrictions prohibit or restrict the size of towers and antennas, they may be unenforceable if many of your neighbors have erected such towers and antennas and no objections have been raised.

If you follow these simple rules, you should not encounter any problems or unpleasant surprises. Happy communications.

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